Digital CreativeArts special edition

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No.2

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Digital Creative Arts special edition

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PPA

Welcome

Samuel Johnson once famously remarked that, "When a man is tired of London he is tired of life." If the good doctor were alive today and plying his trade as a digital creative, he might well say the same thing about Photoshop. This essential program is a veritable Swiss Army knife to the legions of creatives who use it every day to improve and enhance their work. Life without it is unthinkable.

Photoshop is a remarkably flexible tool, so instead of focusing on the program's features this edition of *Digital Creative Arts Special Edition* concentrates on its real-world applications. We'll show you how to create stunning digital illustrations, how digital painting techniques can transform any photograph into a breathtaking portrait, how to create textures for 3D models and how to use Photoshop's companion program ImageReady to create a portfolio Web site for your own work.

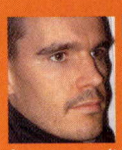
And if you only follow one project this issue, make sure its Simon Danaher's guide to creating our stunning cover image with Photoshop and Cinema 4D on page six. Mixing 3D and 2D media is all the rage at the moment and this article explains why.

Finally, a big thank you to all readers who took the trouble to write in about our first issue on video editing. Keep your comments coming and don't forget to let me know which topics you'd like us to cover in future issues.

Paul Newman, Managing Editor
pauln@digitalcreativearts.co.uk

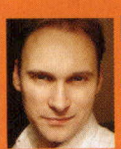
YOUR EXPERT GUIDES

Jason Arber
Design director of new media agency Green Cathedral by day, editor of the Pixelsurgeon Web portal by night, Jason flexes his creative brawn and shows how to take it back to the old school in our graffiti illustration tutorial on page 46.



Simon Danaher
When we needed someone to create this issue's cover digital illustrator, Simon was first on our list. As a leading digital artist and author of several 3D books, he's perfectly placed to show how he created our cover artwork on page 6.

Simon Foster
A veteran of some of the UK's leading graphic design agencies, Simon has embraced 3D and is happy to be working during 'the biggest revolution in the arts in 500 years'. Meet Eric the dragon in the UV texture mapping tutorial on page 72.



Mark Kendrick
Art Director of Highbury-Paragon, the publisher of *Digital Creative Arts Special Edition*, and self-confessed new romantic, Mark shares the benefit of his long experience with Photoshop and a graphics tablet in the digital painting tutorial on page 58.

Adam Watkins
As Director of Computer Arts at Texas' University of the Incarnate Word and an established 3D author, there are few things Adam doesn't know about combining Photoshop with programs like Maya and C4D. Find out more on page 68.

Chris Schmidt
A graphic design who has used Photoshop since the year dot, Chris now runs his own Web design agency. He shares the benefit of his long association with Photoshop by showing you how to retouch a model on page 24.

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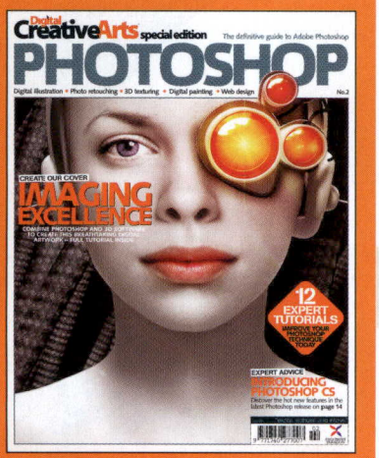

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Competition

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Digital CreativeArts Special Edition 02

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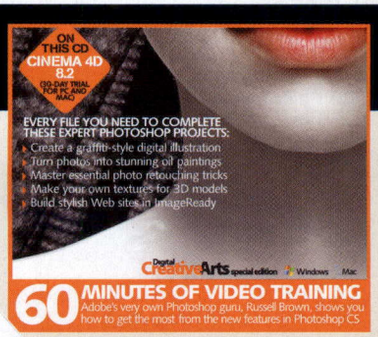
This issue's disc is packed with learning resources and tutorial files to help you make the best possible start to mastering Photoshop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60 MINUTES OF VIDEO TRAINING
Adobe's very own Photoshop guru, Russell Brown, shows you how to get the most from the new features in Photoshop CS

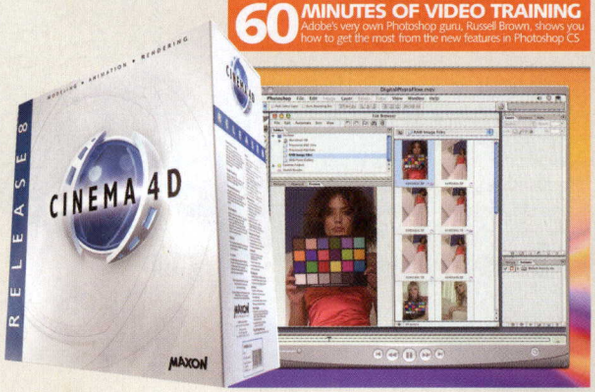
60 minutes of video tutorials

Get up to speed fast with the new features in Photoshop CS with this collection of video tutorials from Adobe's Senior Creative Director Russell Brown. Modules include:

- Handmade Books
- Digital Photo Flow
- Hidden In The Shadows
- Panoramas Gone Bad

Cinema 4D R8.5 (PC and Mac demo)

Learn how to blend 2D and 3D media by taking the latest version of this flexible and powerful 3D modelling and character animation solution for a test drive.



[writer: Simon Danaher | hardware: PowerMac G4 | software: Photoshop 7.0, Cinema 4D R8.5]

CREATE THIS STUNNING IMAGE

Combining 2D Photoshop work with 3D design is all the rage at the moment. We show you how to recreate this issue's cover, which was composited using Photoshop and Maxon's Cinema 4D

ON THE CD

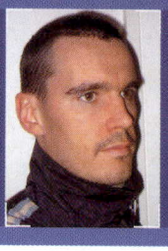
On The CD
*cams.c4d****
*CapFin.psd****
*CyberStage1.psd****
*CyberStage2.psd****
*CyberStage3.psd****
*Face.c4d****
Girl.jpg
*SkullCap.c4d****

****[It's important that the textures reside in the same folder as the .c4d files]*

■ *Using a normal photograph of a young woman as a starting point, we added a skullcap and some shadows in Cinema 4D before hopping over to Photoshop for a spot of compositing and some serious colour correction*

YOURGUIDE

SIMON DANAHER is an acclaimed 3D artist and writer. He has been working in 3D computer graphics for over seven years, gaining ample experience in all the major 3D packages. He has written three books including *Digital 3D Design* and *3D Wizardry*. Simon's current speciality is advanced shading and rendering techniques.



There is a natural symbiosis between 3D and 2D design. Both can be used together at different stages of the development of an image, be it a 3D image or a 2D illustration.

3D artists use 2D programs such as Photoshop to create textures and composite and colour correct their final renders, while 2D artists are increasingly incorporating 3D rendered elements into their designs. It's the latter technique that we'll be exploring in this tutorial, and the subject matter for our illustration perfectly symbolizes the combination of 2D and 3D art.

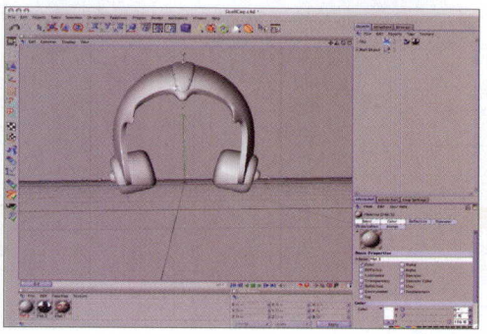
Our female cyborg will be created using a combination of Cinema 4D, a high-end 3D program from Maxon Computer (**www.maxon.net**), and Adobe Photoshop. The starting point is a standard photograph of a young woman to which we will add 3D rendered elements. This sounds simple, and generally it will be, but you have to keep your wits about you. The key to getting the 3D and 2D images to fit together is the lighting. Although a lot can be done in Photoshop to match the renders to the photograph, it is crucial that the lighting in the 3D program is set up to match that photo as closely as possible.

The end result is a near seamless composite, and we'll show you exactly how this is achieved over the next seven pages.

Please Note:
The reflection image used in the SkullCap scene is an HDR image by Paul Debevec. Download this file from **www.debevec.org/Probes/campus_probe.hdr** and place it in the same folder as the Cinema 4D scene files on your hard drive so that Cinema 4D can find it. Just save the image to disc as a file.

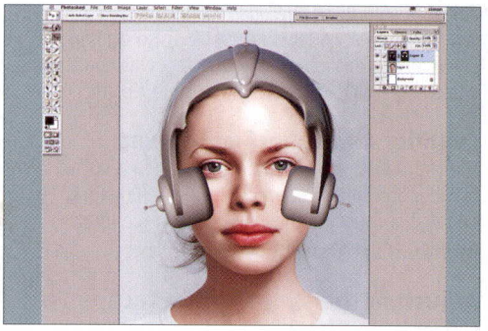
Step-by-step: Combining 2D and 3D elements

Our illustration odyssey will commence by adding a skullcap to our model in Cinema 4D. We'll then make the jump to Photoshop for some full-on tweakery pokery...



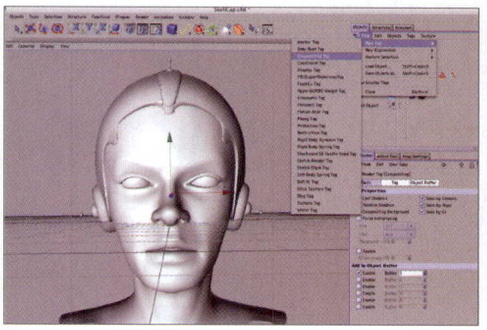
1: Who the cap fits

In Cinema 4D we created a skullcap for the cyborg. To save you time we've included this object on the CD. The design doesn't really matter, what's important is how we set it up in Cinema. Open the file 'SkullCap.c4d' from the CD.



2: A problem...

If you render this and attempt to composite it in Photoshop you will encounter a problem. The cap overlaps the head so there needs to be an edge that makes it look like the cap fits snugly. You could draw a path in Photoshop but that's too fiddly. Instead we'll add a face as a stand-in in Cinema 4D.



3: Creating a tag

Use 'File', 'Merge' and choose 'Face.c4d'. Select the 'FACE' object in the 'Object Manager' list and choose 'File', 'Tag', 'Compositing' from the 'Object Manager' menu. In the 'Attribute Manager' click on 'Object Buffer' to reveal more options and enable the first 'Buffer' for this tag (Buffer 1).

4: Multipass rendering

Go to 'Render', 'Render Settings', 'Multipass rendering'. Pick 'RGB Image' and 'Object Buffer' from the 'Channels' pop-up. Pick 'Group ID 1'. Hit 'OK'. When you render the image to the Picture Viewer you'll get the image plus alpha plus the buffer, which is a special alpha mask. Save it as a Photoshop file.

CREATE OUR COVER IMAGE

Quick guide to creating models in Cinema 4D

The models we used to create this image were created in Cinema 4D very simply using the built-in objects, here's a breakdown of how it's done

Using polygons to create the cap

Cinema 4D has a pre-built female model called Meg. We used her to create the face and cap. The cap was created by copying polygons from her head, using the 'Split' function, and then extruding them to give them thickness.

Smoothing things out with HyperNURBS

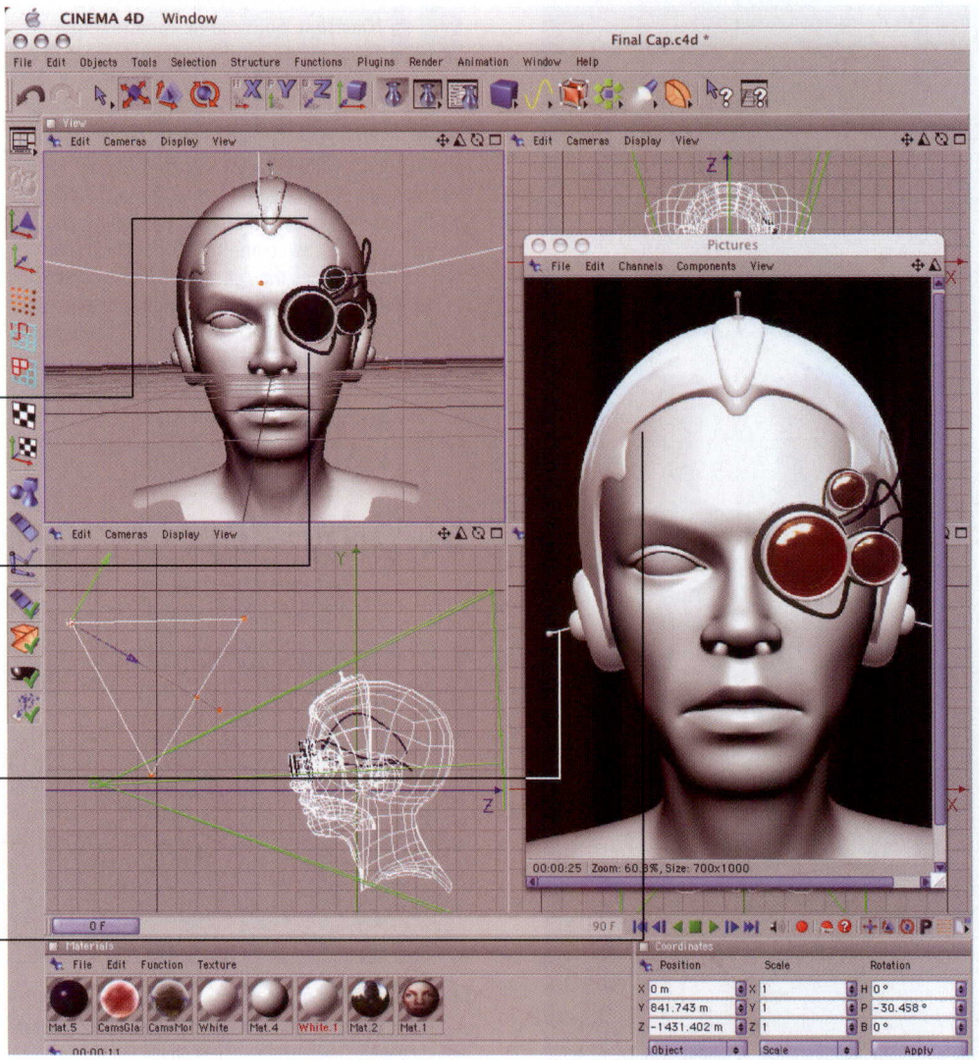
The camera is made from another cylinder, converted to polygons and used in a HyperNURBS object to smooth it. The ends were extruded inwards to make a lens, which was also split and given a different material. The object was duplicated twice and scaled to create the camera cluster.

Cylinder and sphere primitives

The cap details were created using Cinema 4D's cylinder and sphere primitives. 'Fillet' rounding is enabled on the cylinders to give them the nice rounded edges seen here

Adjusting the shape of the face

Another copy of Meg's head was used for the face. A background image of the girl's face was used as a guide to adjust the shape of the face so the edges where it intersected the cap roughly matched.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Final Cap.c4d *
File Edit Objects Tools Selection Structure Functions Plugins Render Animation Window Help
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Pictures
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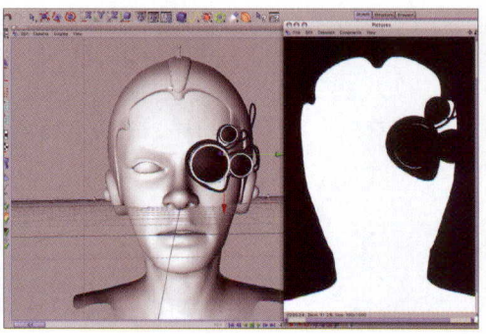
Materials
File Edit Function Texture
Mat.5 CamsGla CamsMor White Mat.4 White.1 Mat.2 Mat.1
Coordinates
Position Scale Rotation
X 0 m X 1 H 0 °
Y 841.743 m Y 1 P -30.458 °
Z -1431.402 m Z 1 B 0 °
Object Scale Apply

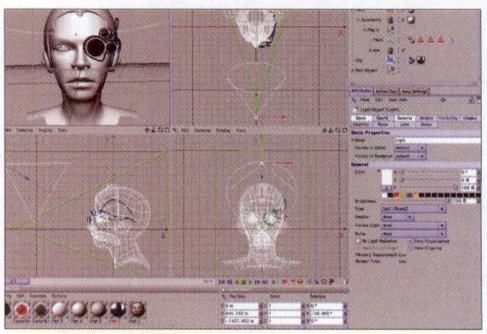
5: Create a layer mask

Open this file in Photoshop and load the normal alpha as a selection. Subtract the buffer alpha of the face from this selection. Turn the Background into a Layer by double-clicking it. Hit 'OK'. Turn the selection into a layer mask by clicking the 'Add Layer Mask' button at the bottom of the Layers palette.



6: Adding more detail

Working with 3D and 2D requires plenty of forward planning. What if we decide we need more gadgets on the girl? That's not a problem. Choose 'Merge' again and open the 'Cams.c4d' file on the CD. If we render again the buffer we set up takes into account the new geometry, so our set up is not wasted.

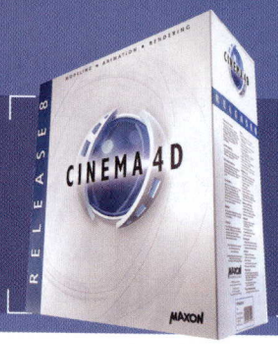


7. Let there be light

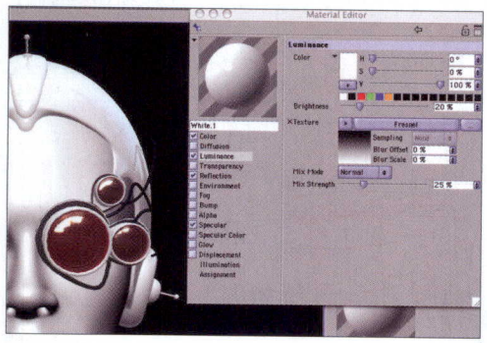
Another problem is that our lighting doesn't match. The face is quite evenly lit and there's too much ambient light. Choose 'Objects', 'Scene', 'Target Light' to add a spotlight. In the side and top views move the light so it's central and slightly above the cap. Drag the orange handles to widen its cone angle.

What the hell is Cinema 4D?

Cinema 4D is a 3D rendering and animation package from Maxon Computer. Cinema 4D has increased it's popularity and credibility over the years to become one of the preeminent 3D packages at the high-end of the 3D market. The latest version is 8.5, which is an upgrade to the major release earlier this year of version 8.0. You can buy Cinema 4D by visiting **www.maxonshop.com/uk** or by calling 01525 718181.

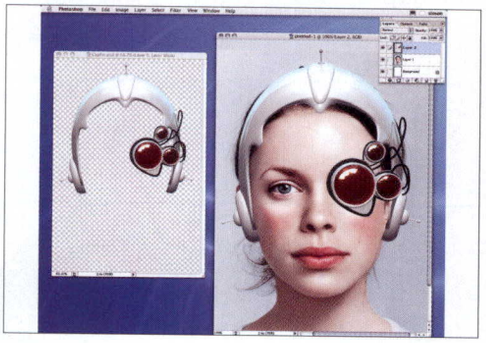


■ *A combination of powerful and intuitive features and great value for money has seen Cinema 4D's popularity rocket in recent years*



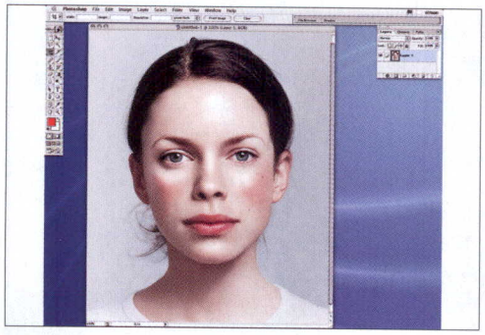
8. Shading it

Open the materials called 'White' in the 'Material Manager' one by one. Click the check box to enable the 'Luminance' channel. This has already been set up and features a Fresnel shader to make the edges of the object brighter. This luminance will simulate the appearance of ambient light.



9. Render it out

The 3D work is complete. All you need to do is render out the scene at the required resolution. Compositing this render in Photoshop with the rough image shows the lighting is good. We can now move on and create the full composite. The render you need is called 'CapFin.psd' and it's on the CD.

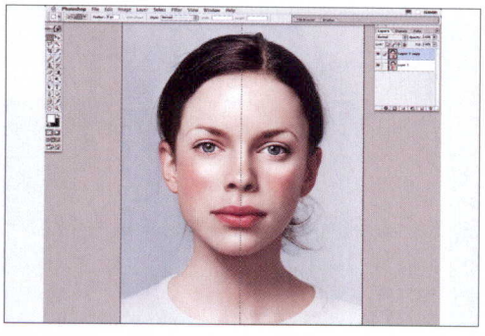


10: Open the original image

In Photoshop, open the file 'Girl.jpg' from the CD. This is the unadulterated photo that will form the basis of the Cyber girl image. She looks great, but we will still need to make some changes if we are going to turn her into a cyborg.

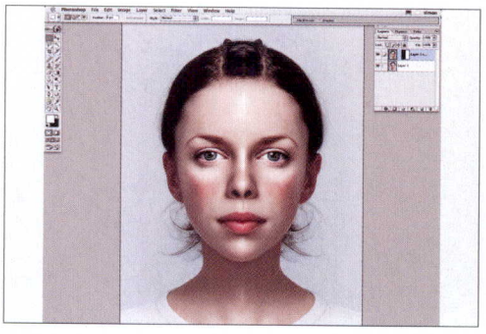
11: Flip the script

Make a copy of the background by dragging it to the new layer icon in the 'Layers' palette. Flip this layer by clicking on the 'Edit' menu and selecting 'Transform', 'Flip Horizontal'.



12: Imperfect symmetry

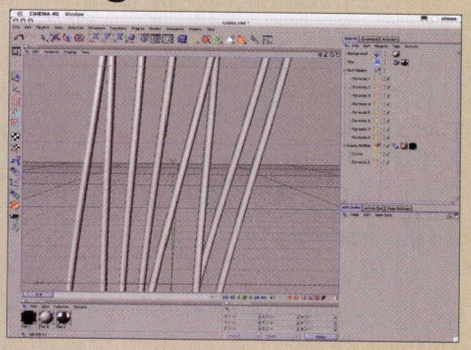
Using the centre of the model's lips as a mid-point, drag a marquee around one half of her face. We want to mirror one side of her face to make her unnaturally symmetrical – this will also help us composite the cap later on.



13: Moving the mask

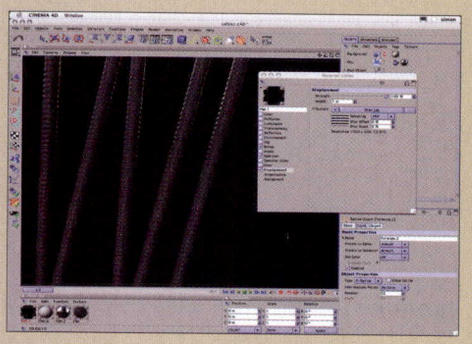
Click the 'Add Layer Mask' button to convert the selection to a layer mask. As you can see, she looks very odd and the join is not great. Unlink the mask from the layer by clicking the chain, select the 'Move' tool and move the mask and layer in turn to get a good fit. It doesn't need to be perfect.

Adding rendered background details



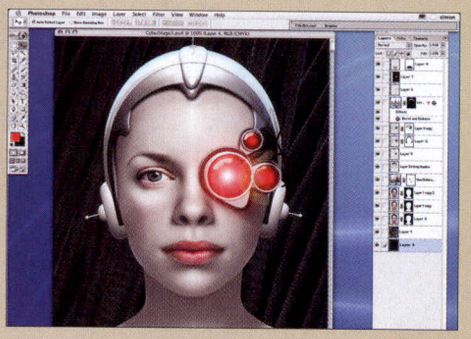
Creating tubes

While the pale background works well in this image, we can enhance it further by adding a darker backdrop with some extra detail. In Cinema 4D we created a series of spline curves and then swept a Circle along them to create these tubes.



Adding the detail

to make the ribbed surface we used a simple black-white striped texture which was applied in both the 'Bump' and 'Displacement' channels of a material. This creates realistic corrugations along the tubes.



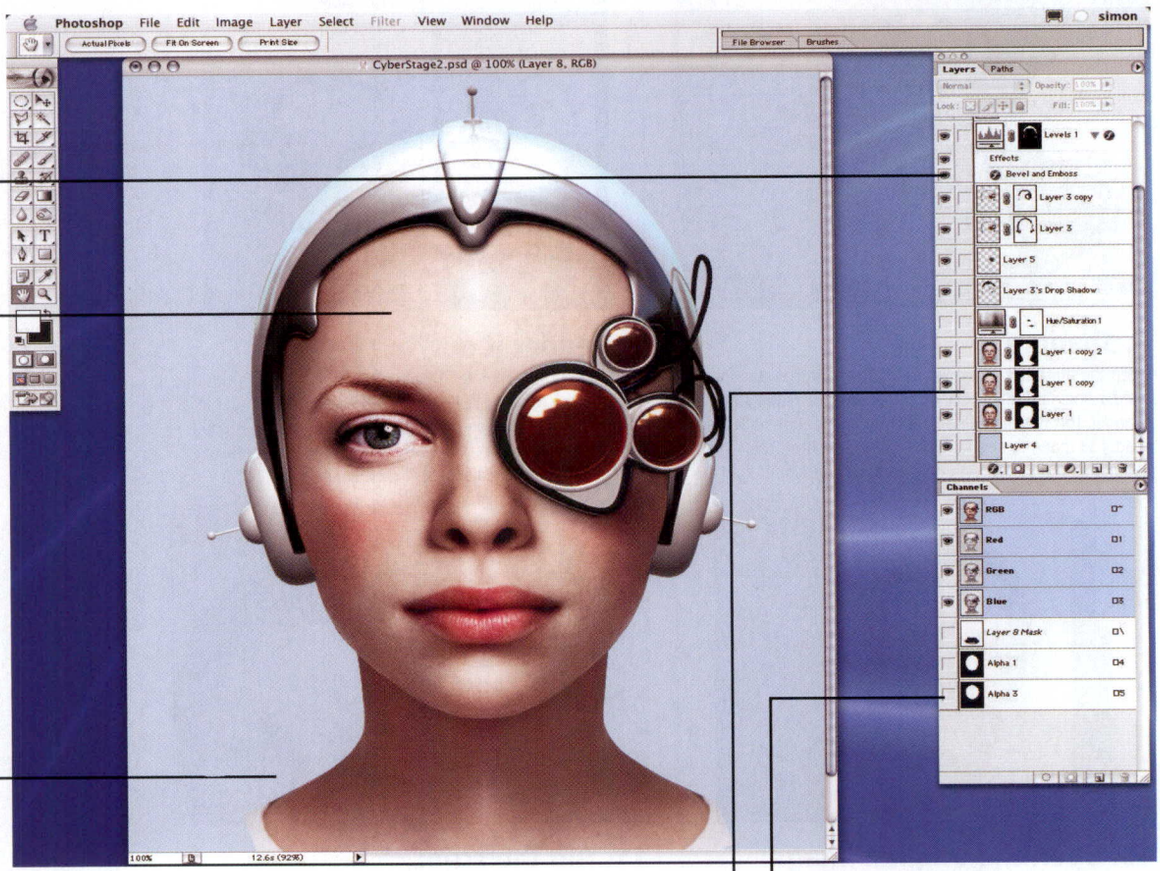
Rendering the scene

The scene is rendered out against a black background and composited behind the girl in the Photoshop document. The Levels were then adjusted to dampen the brightness of the tubes so they didn't distract from the girl too much.

CREATE OUR COVER IMAGE

Quick guide to getting around in Photoshop

Speed up your productivity in Photoshop by using these top techniques to aid you in creating stunning imagery



Layer Styles

A Layer Style is displayed with its layer in the Layers Palette. You can turn them on and off independently or convert them to real pixel layers.

Lighting

When using Layer Styles pay attention to the direction of light in the image.

Zooming in and out

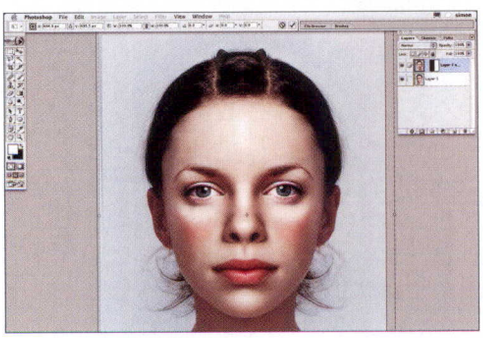
You will need to zoom in and out of the image quickly. The easiest way on a Mac is to hold the space bar and command keys and click to zoom in. Hold down the alt key as well to zoom out.

Layers and masks

This kind of composite image requires plenty of layers and masks. To unlock a layer mask, click the link between the layer and its mask. You can then move either freely.

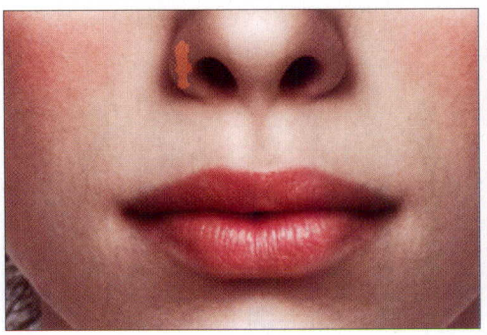
Alpha Channels

Alpha channels are stored in the Channels palette. You can load them as selections by command-clicking on them.



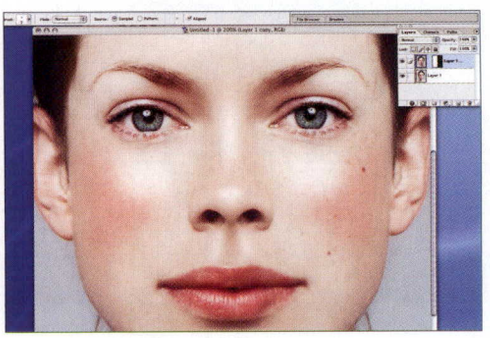
14: Rotating the layer

Now we need to rotate the layer slightly to get a slightly less crooked appearance. Press 'Command+T' for 'Free Transform' and drag outside the bounding handles to rotate the layer. Don't worry about the eyes pointing in different directions because one will be covered by the 3D cameras.



15: Give it some lip

The symmetry is good but we can bring back some asymmetry on the very centre part of the lips by painting in white on the layer mask using a soft brush. It's very subtle, but it's worthwhile doing for that added touch of realism.

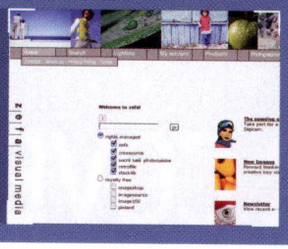


16: Cleaning up

Now we'll remove any imperfections in the skin. We want our model to look unnaturally perfect, which will help to tie in the perfect 3D rendered object with the photo. Use the 'Healing Brush' with a small radius soft brush to dab out the freckles and marks on her skin. Remember to do this on both layers.

Getting the right source images

Every professional illustrator knows that it's nigh on impossible to fulfil some briefs without having high quality source material to start with. In this tutorial we're indebted to Zefa (**www.zefa.co.uk**) for allowing us to use the photo of the girl that our finished image is based on. Zefa Visual Media is one of the most progressive stock agencies in Europe, supplying modern, contemporary, forward thinking imagery, across wide ranging subject areas. The agency specializes in people related imagery, shot with a contemporary yet usable flavour.



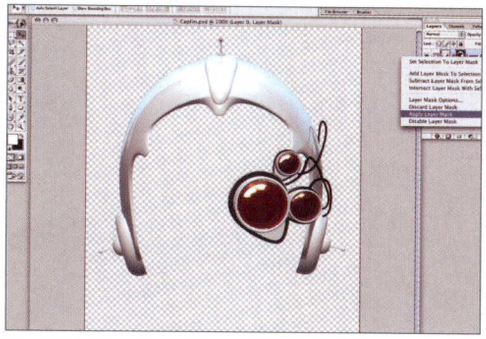
SAYWHAT?

BUFFER

Is a term used in 3D to refer to any stored image data that is not directly used as part of the rendered image (it may be used to create a part of it, such as shadows). It's often an alpha channel, or depth map.

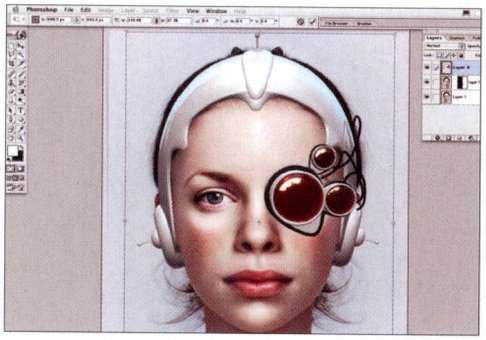
GAMMA

The centre slider in Photoshop's 'Levels' dialog is called the Gamma slider. It shifts the brightness of mid-tones without affecting the darkest and lightest pixels.



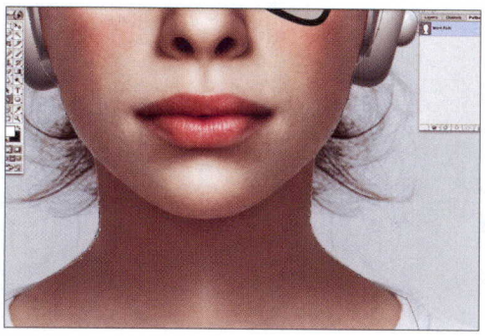
17: Adding the cap

Open 'CapFin.psd' from the CD. 'Command-click' the 'Alpha1 channel' in the 'Channels' palette and command-alt-click on 'Object Buffer 1' to subtract it. Apply the selection to the image as described in step 5. Right-click on the layer and pick 'Apply Layer mask' to delete the background from the layer.



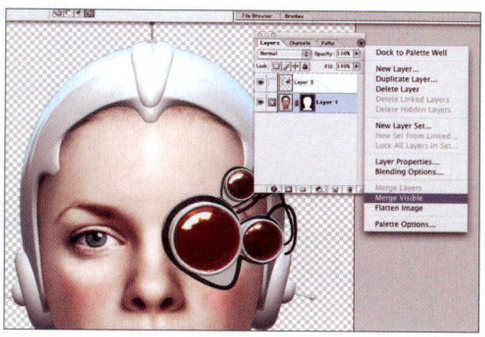
18: Position and scale

With the girl document visible, drag and drop the Cap layer from the 'Layers' palette into the girl document. Move it into position on the girl, you may need to use the 'Free Transform' tool, scaling as necessary, to get the desired fit. this stage is saved on the CD as 'CyberStage1.PSD'.



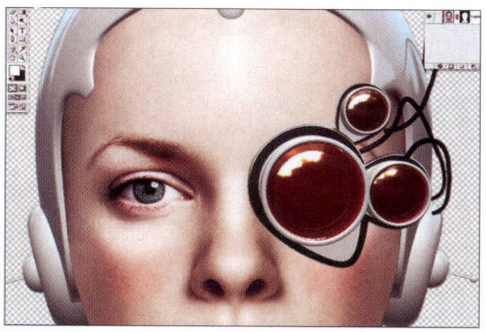
19: Create a path

Use the 'Pen' tool to draw a path around the model's jaw, neck and shoulders, carefully cutting away the background and hair. The upper part of the path can be more roughly drawn because the cap covers the edge.



20: Merge the layers

The cap layer is turned off and then 'Merge Visible' is chosen from the 'Layers' palette's option menu. In the 'Paths' palette the path is converted to a selection using the button at the bottom of the palette. We will use this as a Layer mask for the merged layer.



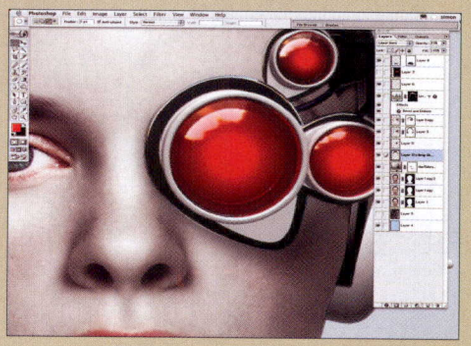
21: Clone away the hair

With the outer hair gone we can deal with the hair visible under the cap. Use the 'Clone' tool and a soft brush to clone out the hair. Sample from directly below where you are cloning to match the shading of the skin as closely as possible. It's best to make a copy of the girl layer for this.

22: Burn it

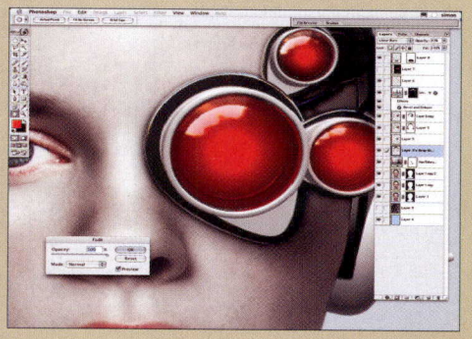
Use the 'Burn' tool and a largish brush to darken the forehead and jaw near the edges of the cap. Use a low opacity (10-20) and do this on a duplicate of the cloned layer. If you overdo it, adjust the opacity of the layer to reduce the effect. We're not trying to create a shadow, just adding shading to the face.

The secrets of successful shadows



Keeping it real

To really sell a composite you need to pay close attention to shadows. Note that the cameras don't have any extra shadows, but they should because they extend forwards and cover the eye area.



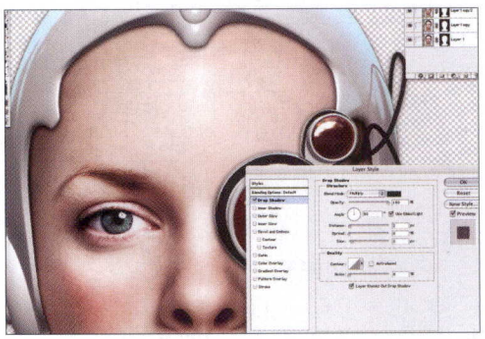
Paint it black

In the cap shadow layer we can add some extra shading using black paint, applied very softly. Note that if you over-do this you can either undo or use 'Edit', 'Fade' to adjust the opacity of the last stroke.

Burn baby burn

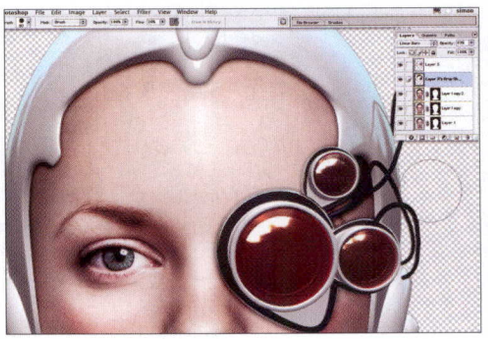
A bit of colour is needed in the shadows because dark colours are usually more saturated. You can do this on the 'girl' layer by using the 'Burn' tool in 'Midtones and Shadows' mode.

CREATE OUR COVER IMAGE



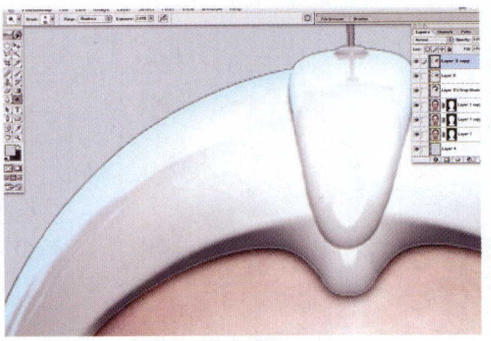
23: Drop shadows

For the shadow, apply the 'Drop Shadow' Layer Style to the cap layer. Set the direction to '90°' and adjust the softness and distance, to '3' and '1' respectively. This creates our shadow, but it's not great. And it extends outside the outer edges of the cap.



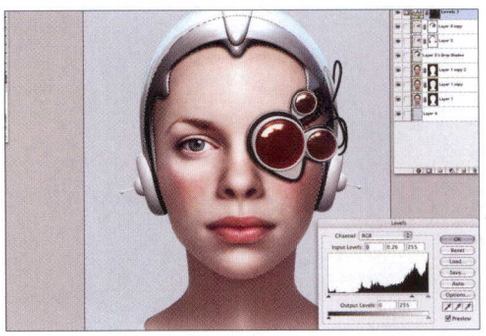
24: Linear Burn

Click 'OK' to accept the shadow, right-click on the shadow effect layer in the 'Layers' palette, choose 'Create Layer' and hit 'OK'. This makes a real layer from the Layer Style. Change its blending mode to 'Linear Burn' and use the eraser tool to delete the portion of the shadow outside the cap.



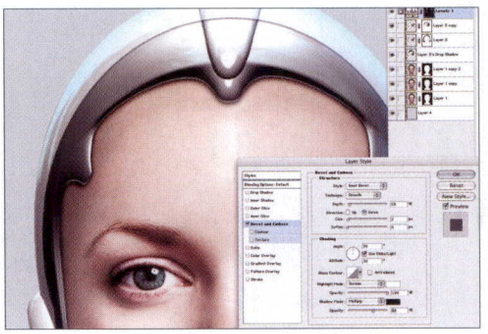
25: Now fix the edges

Do this by duplicating the cap layer. Pick 'Layer', 'Matting', 'Remove Black Matte' for the top layer and 'Remove White Matte' for the bottom. Add a layer mask to the top one and paint in black to mask out the inner edge. Let the lower layer show through. Repeat on the lower layer for the outer edge.



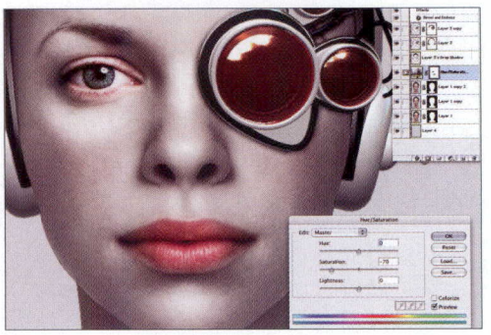
26: Add detail to the cap

Draw a selection using a pen path, load it and intersect it with the cap layer's transparency. Do this by command-option-shift-clicking one of the cap layers (not its mask). Add a Levels adjustment layer (the selection is automatically used as its layer mask). Use the Gamma slider to darken your selection.



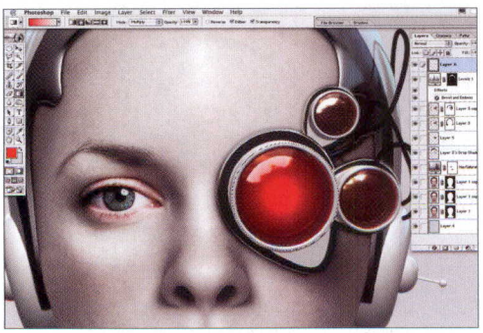
27: Add an edge to the cap

Do this by applying 'Layers', 'Layer Style', 'Bevel and Emboss' to the Levels Adjustment layer. 'Inner Bevel' in 'Down' mode is used with a 'Size' of '2' and a 'Depth' of '60%'. This creates a shadow and what looks like a reflection under the edge near the skin. This file is on the CD as 'CyberStage2.psd'.



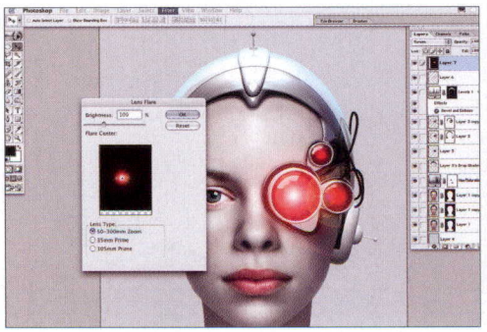
28: Changing the hue

A 'Hue/Saturation' adjustment layer is added below the cap layers to desaturate the model's face. The colour of the eye and lips is brought back by painting in black in the layer mask.



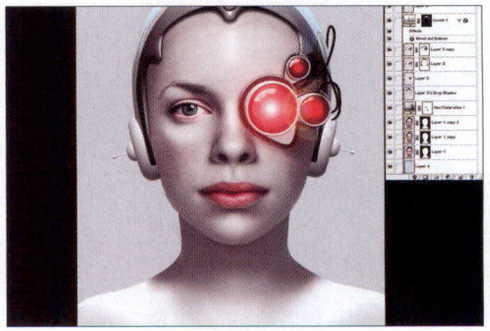
29: Brighten the camera lenses

The camera lenses are brightened up using a series of gradients. These are drawn in a new layer inside a circular marquee, one for each lens. A red colour is used, and a radial gradient mode is chosen. The 'Foreground to transparent' option is also used.



30: Adding lens flare

A new layer is filled with black and set to screen mode. The Lens Flare filter ('Filter', 'Render', 'Lens Flare') is applied with a small radius to provide a bit of glare to the eyepiece. The flare can be controlled using 'Levels' and 'Hue/Saturation' so that it doesn't swamp the image.



31: The final composite

Finally another render is done in Cinema 4D. This time it's the shoulders of the Meg model. This is brought into Photoshop and composited with the rest of the image using a layer mask to blend it into the skin. The final file is 'CyberStage3.PSD'.

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Exploring Photoshop

"ImageReady has also received a CS upgrade, to the hand-rubbing excitement of all you Web designers out there..."

CS

YOURGUIDE

CHRIS SCHMIDT graduated with a music degree and went on to write music before entering the world of graphic design and the Net. He is now a freelance journalist and runs his own Web design business that includes musical clients such as Mercury Award nominee Joanna MacGregor, The Brodsky Quartet and Malcolm Arnold.

Taking centre stage of Adobe's new Creative Suite is Photoshop CS. **Chris Schmidt** rolls up his shirtsleeves and gets his hands dirty to find out how the latest incarnation of this peerless app will enhance your art

Ask any creative computer user which single program they'd take if banished to a desert island, and more than likely the response will instantly come back as Photoshop.

Photoshop has a long and respected history and has far more purposes than its limited title may suggest. Of course, photographers have long been using Photoshop to retouch imagery, but the features available to graphic designers, video producers, Web designers and those working in publishing are equally powerful. Not only is it efficient, but its power and flexibility remains impressive, no matter how world-weary the digital creative at the keyboard may be. But at long last, the eighth generation of Photoshop is upon us. Released in late 2003, there are just two questions on the lips of creative professionals the world over: what can we expect from Photoshop CS, and why the hell is it called 'CS' anyway?

"There's also the ability, finally, to place editable text along a path or within a shape, which will undoubtedly raise cheers..."

Future features

To take the second question first, although Photoshop 8 would have been the more straightforward moniker for the new release, 'CS' stands for Creative Suite. The Adobe Creative Suite is a fair A-Z of artistry, including new versions of Illustrator, InDesign, GoLive and, of course, Photoshop. By collecting them all together, Adobe is promoting greater product and discipline integration, which can only serve to enhance your file flexibility and therefore your creativity.

Photoshop is essentially the Swiss Army knife of the software world, with a set of tools capable of catering for any imaging magic you want to create. Before we look at the specifics though, let's start by examining the new features that have universal appeal.

Existing users will be relieved to see the interface remains essentially unchanged, making transferring to the title a natural evolution. One of the first changes you will notice, however, are the enhancements to the File Browser, which is now removed from the palette dock to become a self-contained component.

The ability to associate user-defined keywords with your images is also new, and makes the location of specific images a much more efficient task. In addition, images can be flagged – filtering results even further – using a familiar lightbox principle. Image metadata also becomes editable so that you can embed your copyright information in a file. And with the increased integration across the CS range it also becomes possible to view PDF, Illustrator CS and InDesign CS documents from within Photoshop. As if that wasn't enough, preview images are made more flexible by allowing more detail to be available and batch processing can also be performed directly from the file browser, which has the benefit of speeding up all such automated actions.

Away from the File Browser, the new 'Filter Gallery' tool is a key addition to the 'Filter' menu. Using a similar principle to Layer Styles, it's now possible to experiment with different filters, applying them in various orders to examine the effect, before applying them to the image.

Distributing work within work teams has become as easy as pie, with Photoshop CS giving you the ability to bind multiple files into a single multi-page PDF document for previewing to clients, for example – or on a smaller scale, you might want to take advantage of the new Web Photo Galleries for showcasing your work online. And if all the new changes start to get a bit much for you, take advantage of the new Welcome screen that's available when the software launches and allows access to tutorials and new features, or the brand new 'How to' suggestions.

Photographic features

Despite Photoshop's broad appeal to a whole range of creative types, it has never forgotten its posse of photographic users. With the software's core functions now operating in 16-bit, you can be assured of more information being contained within image files. Raw camera footage is also supported, making higher quality source material available directly from professional digital SLR cameras. But if scanning is your preferred method of importing work, the ability to automatically crop and straighten such images will allow you to take some of the tedium out of this repetitive task. Once your image is available in

EXPLORING PHOTOSHOP CS

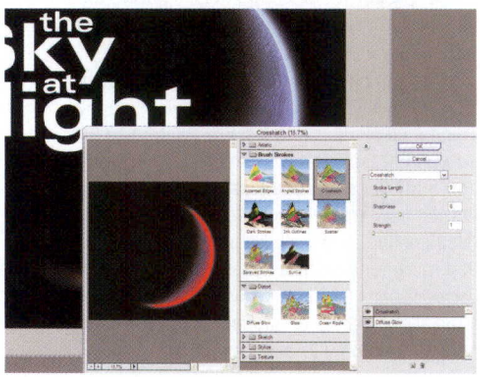
↘ Photoshop there are further enhancements to help your production. Colour matching is one such feature, as the colour balance from one image can be used to influence another, which is useful for creating more consistent results across images to be used within the same project.

Exposure problems can also be rectified much more easily thanks to the new 'Shadow/Highlight' feature found within the 'Adjustment' options. This provides more intelligent methods of balancing such common problems while preserving the overall balance of your photo. Similarly, the ability to replace colours within a specific area of an image is improved through the 'Colour Replacement' tool that ensures original texture and shading are left intact.

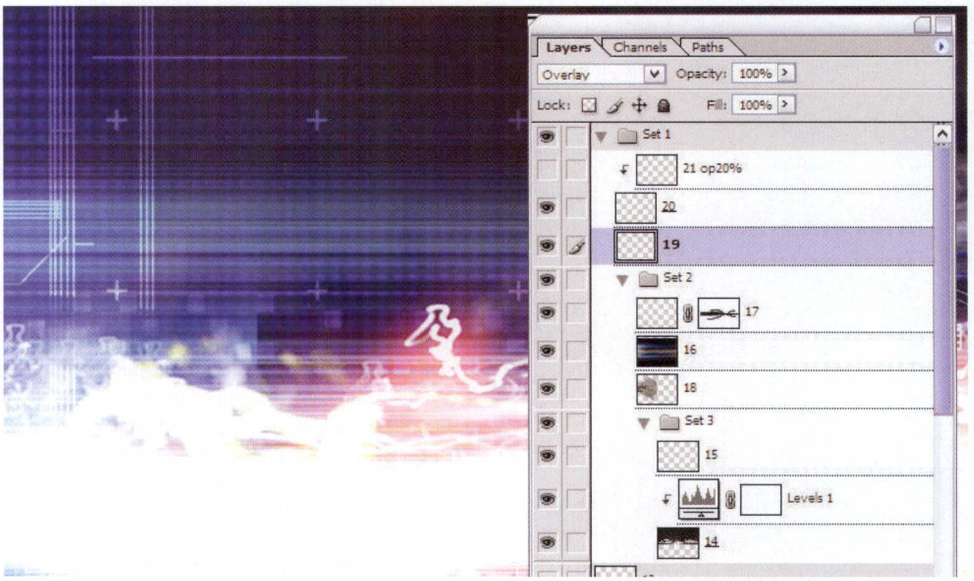
There are also some new filters to be found lurking in the Filter Gallery. Blur effects top the list, but there are several other options that allow you to emulate how a shot would look with a particular photographic lens or filter. The new 'Histogram' palette too will aid more advanced users, by providing a real-time visual indication as to how any adjustments applied to an image affect the overall levels.

Design delights

But Photoshop is so much more than a simple photo-retouching tool. Designers throughout the world use the program each and every day and there are other new features to whet their appetites in this new release. For instance, creatives who use the software for making complex multi-layered artwork now have



■ *Being able to view filters before you apply them is another of the new and clever Photoshop CS functions*



■ *Layers and 'Layer Comps' have had a big CS-style overhaul and now give you much more flexibility over your imagery*

the ability to nest layer sets up to five layers deep. There's also the ability, finally, to place editable text along a path or within a shape, which will undoubtedly raise cheers from many who have been calling for such a feature over the last few upgrades.

Layers have always been a popular choice for designers wanting to provide design variation, but actually creating different versions of an image has always proved tricky. Using the new 'Layer Comps' feature is set to change all this, because different combinations of layers can now be recorded for instant retrieval. The purpose of this is to allow designers to present variations to clients in a far more professional manner. And to highlight Photoshop's strengths across print media, it's now possible for images to be worked on up to a massive 300,000 pixels square.

Web wonders

An aspect of Photoshop all too often forgotten by its many users is the related application, ImageReady. This too has received a CS upgrade, to the hand-rubbing excitement of Web designers worldwide. One of the main problems with ImageReady in the past was the way it drained system resources, but thanks to the way CPU routines are now shared with Photoshop, transferring between the titles is no longer the headache it once was.

There's a new 'Web Content' palette to play with too, which allows the creation of interactive elements while supporting multiple slice sets in a single document. There's also the ability to create dynamic content using variables and data sets, which finally brings the title up-to-date with more feature-rich Web production options.

The process of exporting has also been given a boost, as Adobe finally acknowledges the differences between rival companies' programs. Being able to export layers as SWF files, which can then be used within Macromedia applications, will be a huge pulling point for Flash designers wanting the bitmap advantages of Photoshop. Even exporting to plain old HTML has been made more flexible, as the choice of absolute or relative dimensions is now supported.

Film favourites

Filmmakers make up another sector of the Photoshop user base and support for non-square pixels will help them to ensure the correct aspect ratio is rendered

PHOTOSHOP GENERATIONS: OR HOW IMAGING HAS TRANSFERRED FROM THE DARKROOM TO THE DESKTOP...

1990

The first version of Photoshop is released at the start of 1990 after Adobe acquires the 'ImagePro' title. Version 2 is released later in the year to fix a few early problems and add some basic functions.

1993

PC users who have been straining at the bit are finally able to use Photoshop in version 2.5.1. This release is also one of the first applications to run on the Macintosh PowerPC chip.

1994

The big addition to version 3 is layer support. This important innovation means that designers are finally able to move objects around their designs before finalising the actual position they want.

1996

Version 4 is announced and introduces the Actions and Navigator palettes, some modifications to the organisation of the toolbox and 32-bit support for contemporary Windows 95 and NT operating systems.

WEBRESOURCES

Get Adobe advice straight from the horse's mouth by logging onto **http://studio.adobe.com**. Free registration is required before you can access the goods on offer, but the range of information related to the entire Creative Suite is second to none. Elsewhere on Adobe's slice of the Web (**www.adobe.com/support/forums**) you can ask for help from your peers and, as the Adobe site provides access to various forums, you can be sure your request will be seen by those in the know. Hopefully, help will be forthcoming. Whatever your level of experience in Photoshop you'll be sure to find something at **www.eyewire.com/tips/photoshop** that will offer something new. It has a wealth of tutorials complete with downloadable example files, so you can jump right in.

If you're looking for more information on Photoshop, it makes sense to head for Adobe

Find your way in Photoshop

Looking cleaner and crisper than ever before, here's a peek at the CS interface

Filters and Gallery

New filters are available such as 'Lens Blur', but the big development is the Filter Gallery, which allows experimentation between filter effects

16-bit images

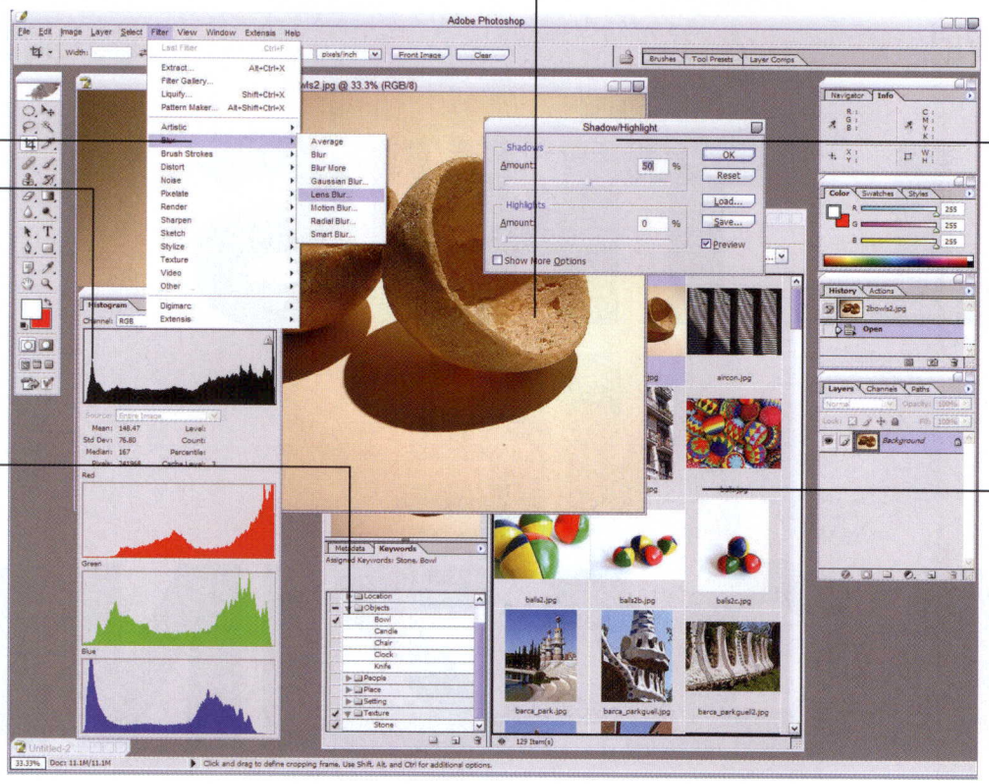
With twice the amount of data being supported by many of Photoshop's core tools, it's now possible to work with higher quality source material

Histogram palette

The new 'Histogram' palette can be expanded for a clearer indication as to how an image's individual channels are balanced

Keyword support

It now becomes possible to associate keywords with images, giving Photoshop its own asset management capabilities



Shadows and Highlights

The new 'Shadow/Highlight' adjustment tool provides intelligent retouching options that can pick out problem areas without affecting other regions

Enhanced File Browser

The File Browser has evolved into a more functional element of the Photoshop interface, with the ability to flag images for temporary selection

when work is transferred to video editors such as Premiere Pro and Final Cut Pro or After Effects.

Similarly, Pixel Aspect Ratio Correction aims to modify the behaviour and appearance of the perceived image, which would normally appear distorted when viewed through the computer monitor. Various preset video sizes are available to ensure correct dimensions are used on new files, along with tools to ensure titles are kept within the recommended boundary ranges for any video display. And 16-bit image support will, of course, be invaluable for improved precision when editing, matte painting or compositing. Whatever you're interested in using Photoshop for, increased connectivity between the various Adobe titles is a real boost, allowing you to open up project files in the different applications and have the changes saved back to the others.

Regardless of the creative discipline you practise, if you're really serious about doing the best that you can, you'll need Photoshop on your desktop. Photoshop CS combines great new features with an already unbeatable application to ensure that Photoshop will remain the principal tool of choice for the entire design community.

Really, the only thing left to ponder is whether you should buy Photoshop CS alone or as part of the Adobe Creative Suite. Ultimately, the decision will rest with you and, of course, your bank balance. ■

1998

ImageReady is added to Photoshop 5 along with new magnetic selection tools, multiple levels of undo and also the History brush, bringing it close to the image-editor we all know and love today.

1999

Web design enhancements come into 5.5 with the essential Save For Web feature being introduced to complement ImageReady capabilities that had already been made available in the program.

2001

Version 6 of Photoshop sees the provision of greater vector control through shapes and editable text. Another excitement is Layer Styles, developing Photoshop's previous Layer Effects feature.

2002

Version 7 is a big upgrade and introduces new features like the File Browser, Healing tool and custom brushes. Recognising that people have their own ways of working, there is also a reorganised workspace.

Digital Video

Digital Audio

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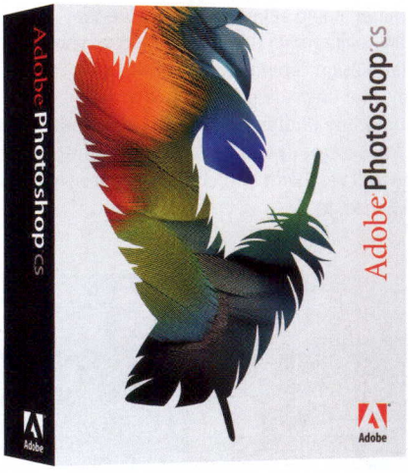
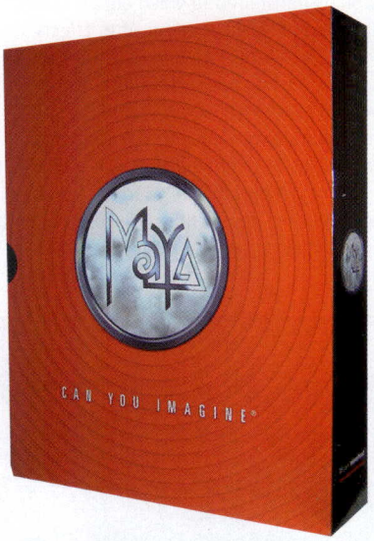


Digital Imaging

YES.



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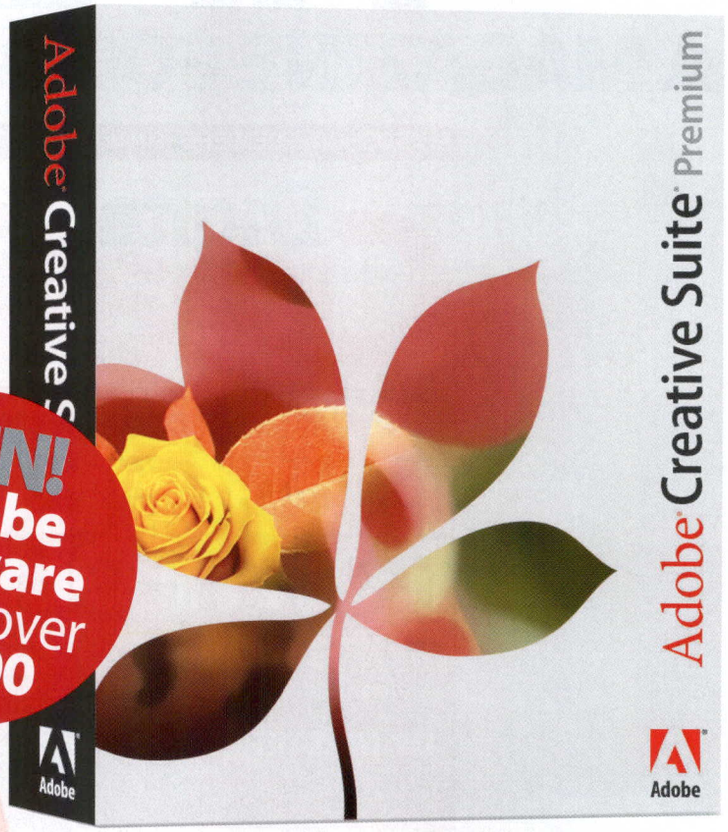


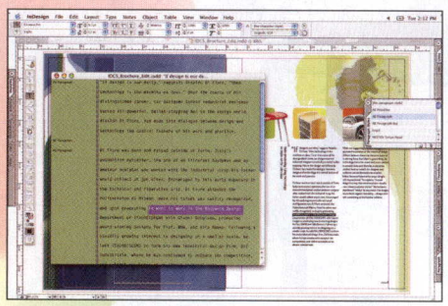
WIN! Adobe software worth over £1,000

You know what it's like. Wait ages for an upgrade and then several turn up at the same time. Well, that's what happened with the recent launch of Adobe's Creative Suite anyway. No sooner had the creative world braced itself for the launch of a new version of Photoshop than Adobe was surprising everybody by announcing not version 8, as Photoshop users had eagerly anticipated, but Photoshop CS; the cornerstone of the creative software giant's new Creative Suite.

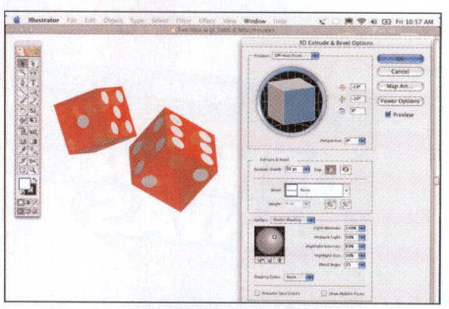
This new version boasts several intuitive and exciting developments. For starters there's the new Shadow/Highlight feature, which will prove a boon to all photographers. Then there's Layer Comps, which allow designers to group different versions of a layered file within one document. And you can also run text along a path for the first time. Other new developments include support for round pixels, enhanced integration with the Adobe Digital Video Collection and beefed up file browser.

And that's just Photoshop. The Premium Edition of Creative Suite also features a vastly improved new version of Illustrator, an update to desktop publishing application InDesign, a new release of Web creativity tool GoLive, a copy of Adobe Acrobat Professional and Version Cue, a new program which ties each of the applications together and enhances digital workflow management. Find our more about these exciting new tools at **www.adobe.co.uk**

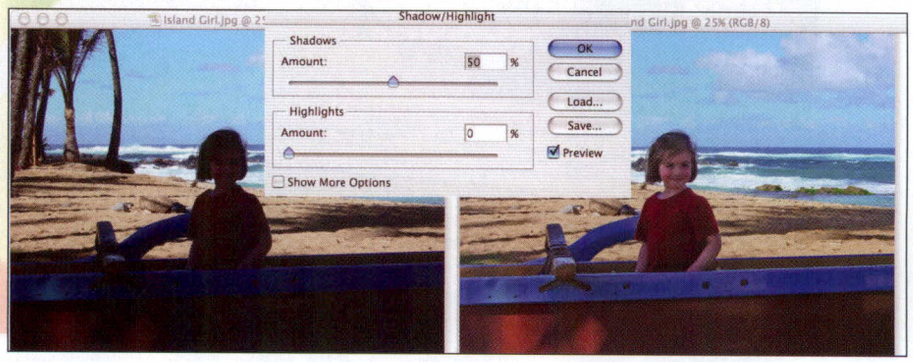
Creative Suite Premium offers far better value than buying each program separately, but at £1,115 it's still expensive. Fear not, because thanks to those nice folk over at Adobe we've got a copy to give away. All you have to do to win is answer the simple question below and we'll enter you into our prize draw...



The latest version of desktop publishing application InDesign will have developers over at Quark trembling in their boots



A new version of Illustrator includes optimised performance for Macs running OS X and new 3D tools, pictured above



Photoshop CS includes several new tools for digital photographers, with Shadow/Highlight, pictured above, being one of the most stunning enhancements to the existing feature set

Which of the following programs is NOT included in Adobe Creative Suite Premium?

A LiveMotion CS
B ImageReady CS
C GoLive CS

When you think you know the answer, bash it into an email and send it to **dca@digitalcreativearts.co.uk**. Alternatively, you can send your entry in by snail mail to **Creative Suite competition, Digital Creative Arts, Paragon House, St Peters Road, Bournemouth, Dorset, BH1 2JS.** Please make sure that you state your full name, email address and postal address so that we can contact you if your entry is successful. The closing date for entries is 17 March 2004.

Disclaimer

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WORKSHOP CONTENTS

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28 .....Create artwork with masks
32.....Correct exposure with Shadow/Highlight

DIGITAL ILLUSTRATION WORKSHOPS
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46 .....Create digital graffiti

DIGITAL PAINTING WORKSHOPS
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68.....Texturise a Cinema 4D model
72 .....Model a high-res character in LightWave

WEB DESIGN WORKSHOPS
78 .....Create an interactive interface
84 .....Build a portfolio Web site

Look for the logo

Learn new techniques with our support files

Look out for this logo as you work through the projects in the magazine. When you see this you can be sure that the files you need to complete the tutorial are included on your free CD-ROM

ON THE CD

Adobe Photoshop Image used: Sample images/ Contax N Digital/ ContaxND_04.JPG

Our workshops explained

The aim of our step-by-step workshops is to furnish you with the skills and techniques you need to develop your creativity in Photoshop. Each tutorial is written by a Photoshop expert and screenshots are provided at every stage

Start to finish
All of our projects have a logical start and end point. We'll show you how to achieve a certain effect or technique without skipping steps or assuming prior knowledge

Your experts
We go out of our way to find experts who know the programs they are writing about inside out. This way you know that the information we provide can be trusted and is always accurate

Illustration workshop
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Let your imagination run riot as you aim a few cans of digital spray paint at your own personal wall. And the authorities can't do a thing about it...
ON THE CD
Step-by-step: your personal graffiti
1: First things first
2: Using the File Browser
3: The Shadow/Highlight utility
4: Up against the wall
5: New kid on the breeze block
6: Seeing a pattern forming

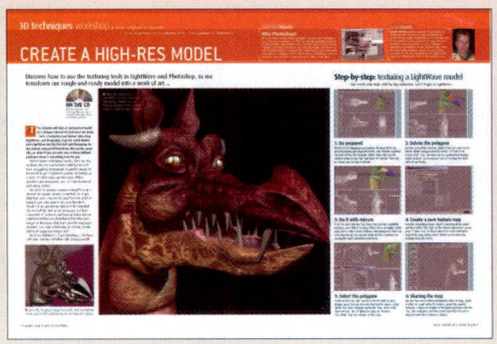
Project files
Support files for every project are included on the *Digital Creative Arts Special Edition* CD. Below the logo is a list of every file needed

Simple guides
Key techniques are highlighted with annotated diagrams so you can clearly see how the techniques we're covering work

Hands-on advice at a glance...

Discover the photo retouching secrets used by the experts to clean up models for magazine covers and print reproduction in our in-depth primer starting on page 24

Digital painting is difficult to get to grips with, but if you use the right techniques you won't go wrong. We reveal how to turn photographs into oil paintings on page 58



Having a good working knowledge of Photoshop is crucial for 3D designers. On page 72 we show you how to create a high resolution character with Photoshop and LightWave

[writer: Chris Schmidt | hardware: 1.4Ghz Athlon PC | software: Photoshop CS]

RETOUCHING IN PHOTOSHOP CS

Understanding the original image

Before we jump straight into the task in hand, let's take a minute to understand what our original image needs to create the best results...

Hair
A little tidying of stray hairs and maybe even changing the hair colour slightly will add further depth to the image

Lips
The model has already been made up prior to the original shoot, but we can make changes to the lip colour to lift the contrast and match the colour of the model's top

Eyes
The eyes are the focal point of a portrait and bringing out the whites, the pupil colour and cleaning up the bags and discoloration under the eyes will make the subject much more engaging

Light and colour
A quick glance at the image shows that light and colour balances are a little muted. This is further supported by the information in the 'Histogram' palette which displays the highlights nearer the midtone region

Skintones
The skintones around the shoulder don't match those of the made-up face, so we'll need to balance things overall to create a more consistent appearance

ON THE CD

finalimage.psd
mainafter.jpg
mainbefore.jpg
topbefore.jpg

Many photographers see retouching as a black art. Although they may be skilled with a standard reflex lens, many have limited digital-imaging skills and editing images in Photoshop often presents challenges beyond their limits.

However, as you'll discover over the new few pages, the skills and techniques required for retouching images and turning a standard studio shot into the glamorised perfection we associate with magazine shoots isn't rocket science – even if the result can be out of this world.

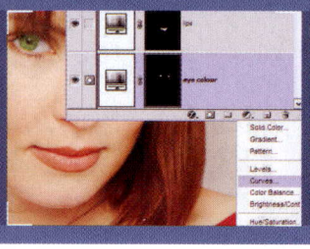
In fact, once you've mastered some basic techniques you'll soon be digging out old images to breathe new life into them. But the real skill behind retouching images is to sensitively gauge the level of adjustment that's necessary for the shot. Here we'll be walking you through the process of creating a potential cover image and because we live in a society where such images are expected to depict a level of perfection that defies reality we can be fairly liberal with the truth.

For more regular portrait work this level of retouching may well be overdoing it and you'll undoubtedly need to tone things down to retain the identity and feel of the original. You'll also need to bear in mind the context and setting of the image – removing wrinkles from a picture of your gran may make her smile, but it will take away much of the subject's character, so a little discretion and an intelligent approach will make your adjustments more relevant and believable.

After all, if an image has been retouched well, it shouldn't be immediately obvious to the viewer – who should be appreciating the composition of the shot and the character of the model. ■

Adjustment layers

Adjustment layers are an excellent way of making changes to an image, as the process is carried out on a separate layer, leaving your original image untouched. This has numerous benefits in that you can easily revert your changes if necessary through the non-destructive method, or make further adjustments based on the original image rather than adjusting an adjustment. It's not as confusing as it might sound, but see for yourself by creating adjustment layers through the icon at the foot of the 'Layers' palette. Just remember that the adjustment layer will affect ALL layers beneath it...



It's better to make adjustments through adjustment layers, as you can easily reverse them if you change your mind

WEBRESOURCES

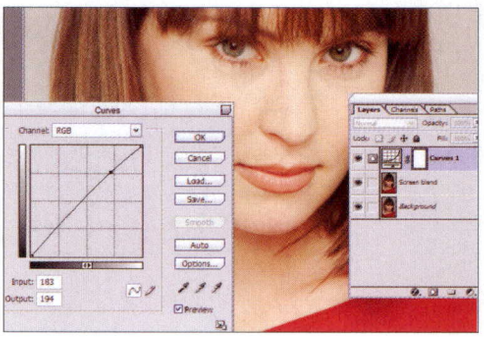
RetouchPro – www.retouchpro.com
Digital Retouch – www.digitalretouch.org
About.com – http://graphicssoft.about.com/cs/photoshopretouch
Find Tutorials – http://tutorials.findtutorials.com/read/category/12/id/276
FreeSkills – http://tutorials.freeskills.com/read/category/12/id/276/p/1

Step-by-step: Glamorising your image

Add a little polish to the image using basic Photoshop tools

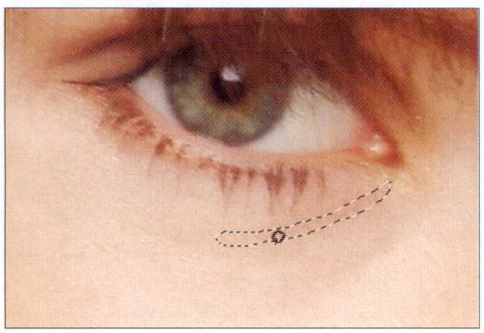
1: Balance the image

The first thing that needs addressing is the light and colour balance so we can determine which areas need further attention. Open the 'mainbefore.jpg' file and duplicate the background layer. Change the blending mode to 'Screen' before reducing the opacity to '70%'.



2: Raise the curves

Create a 'Curves' adjustment layer to sit at the top of the stack, raising the highlights a little, and you'll notice the image brightens considerably while balancing some of the inconsistencies found throughout the skin areas. Subsequent changes must now be made to the main background layer.

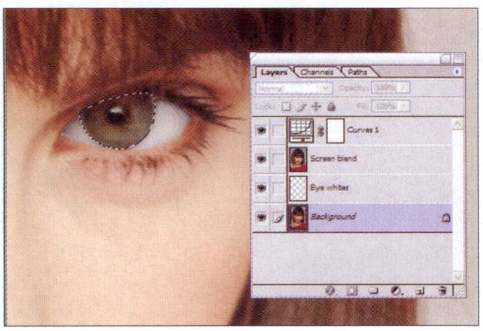


3: A quick facial

The model doesn't suffer from too many skin blemishes, but dig out the 'Patch' tool to take care of the fine wrinkles found under the eyes. Concentrate only on the actual wrinkles, because we'll attend to any discolouration found under the eyes later on.

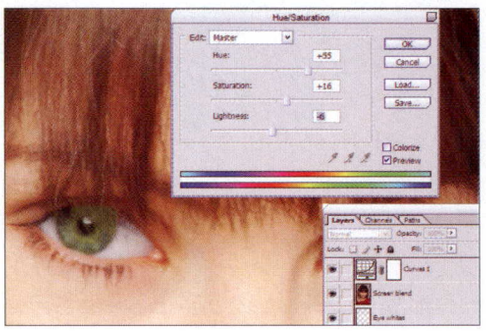
4: Bright eyes

To further bring out the whites of the eyes, create a new layer above the background and change its blending mode to 'Colour'. Now select a suitably sized brush and set the foreground colour to 'white' before painting over the whites of the eyes directly onto this blended layer.



5: Keen pupils

To control the actual pupils, select the background layer and move into 'Quick Mask' mode. Paint over the eyes using a suitably sized 'Brush' tool and transfer back out of 'Quick Mask' mode, making sure the active selection has contained the pupils and not the remaining image.



6: Contact lenses?

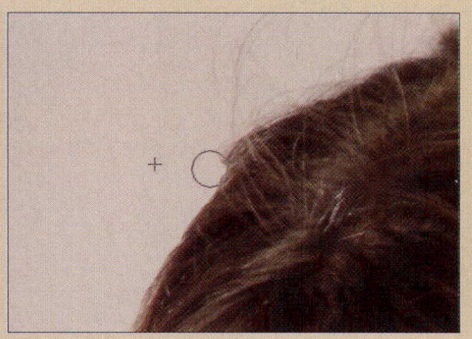
With the selection active and the background layer selected, create a 'Hue/Saturation' adjustment layer and you'll notice the related mask will reflect the original selection. You can now adjust the HSL controls to change the eye colour to your preference without affecting the rest of the image.

Tidying stray hairs

Prepare to start idle conversations with strangers about their holidays as you dip into the world of hairdressing...

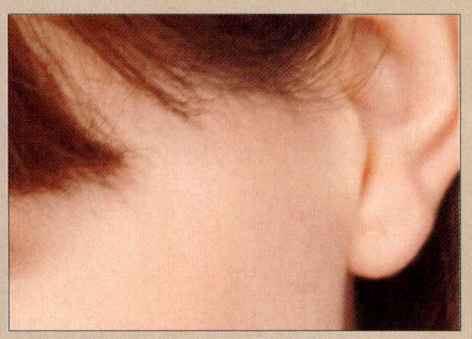
Finding the problems

Open the 'hairbefore.jpg' file and zoom into the image at '100%' to fully appreciate the task in hand. You'll notice there are various stray hairs springing from around the perimeter of the model's head, as well as a few wisps before the ear that need addressing.



Attack with the Clone

As the model is against a reasonably consistent background, we can make use of the 'Clone Stamp' toolset to take out the majority of the hairs around the crown of the head – for example, before reducing the brush size to achieve a neater finish.



Put a patch on it

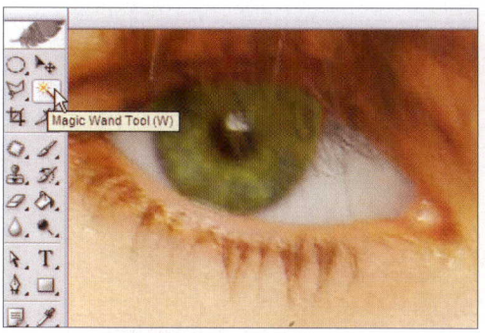
The area around the ear is a little more sensitive, as we need to keep the skintones, but start off by making selections around more prominent areas using the 'Patch' tool and work into the offending region. Check out the 'mainafter.jpg' file on the CD to see how it should look.

RETOUCHING IN PHOTOSHOP CS

Continued...

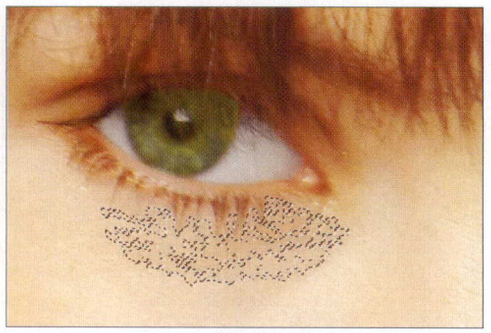
7: A bit of slap

We've used exactly the same process to select and mask the lips into their own 'Hue/Saturation' adjustment layer to bring out some of the colour and match the model's bright top. If you're having problems matching the colours by eye, make use of the 'Info' palette to gauge the correct tones.



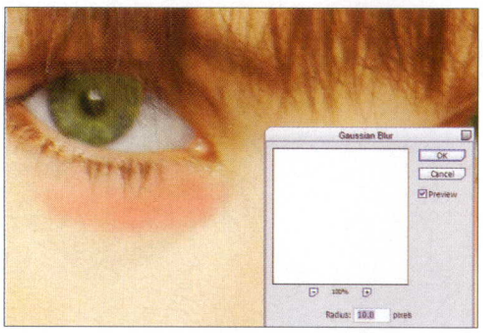
8: Lose the bags

We can now return to the eyes to take care of the discoloration found underneath them. Use the 'Zoom' tool to increase magnification to get as much detail around the eye as possible and choose the 'Magic Wand' tool, setting a low tolerance of around '4' in the 'Options' bar.



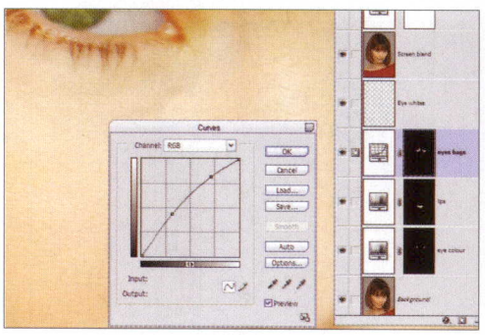
9: Make the selection

Click within the discoloured area to make an initial selection. Now, holding down the Shift key, continue to make selections beneath the eye until you've got a reasonable selection of the problem area. A rough selection will be fine, so don't worry too much about precision.



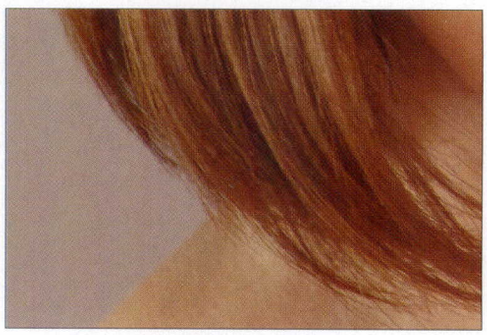
10: Creating the mask

With the selection active, move into 'Quick Mask' mode and the selected area will convert into a patchy looking mask. Apply a 'Gaussian Blur' of around 10 pixels and things will smooth over. With the selection refined, return to 'Normal' mode to continue.



11: More adjustment layers

With your smoothed selection now available, create another adjustment layer but this time choose the 'Curves' option. Photoshop will base the 'Layers mask' around the active selection, allowing you to make the necessary adjustments to rectify the colour imbalance using the slider the tool provides.



12: Trim the hair

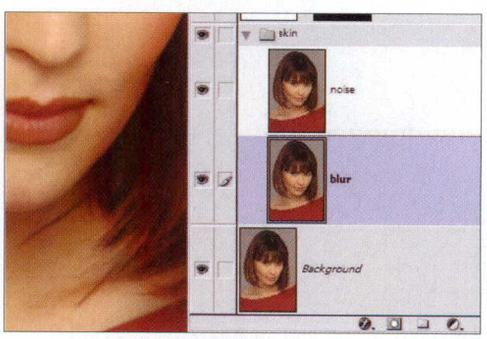
Before we continue to make adjustments to the hair colour, take a moment to trim some of the stray hairs from around the edges using the techniques we've already looked at in the sidebar on the previous page.

13: Paint the town red

Create another 'Hue/Saturation' adjustment layer and configure the colour, concentrating only on the hair, from the original brown to a deeper red to match the model's top and retouched lips. Don't worry if she starts to look a little embarrassed at this point, because we'll fix this next.

14: Manage the mask

Select the adjustment 'Layers mask' and fill this with black, effectively cancelling out the colour change, and now select the 'Brush' and paint over the hair area with white paint to modify the mask and allow the colour to be restricted to the hair only.



15: Soften the skin

For our cover shot results we're going to make things a little softer and simulate some soft focus. Create a new layer set and make two duplicates of the background layer, naming them 'Noise' and 'Blur', and stacking the 'Noise' layer above the 'Blur'.

CREATIVEPRIMER

Clipping groups

Adjustment layers are one of the most flexible ways of experimenting with image adjustments without damaging pixel content. However, they affect all underlying layers. If you want to restrict an adjustment layer to a specific layer, you may want to play around with 'group clipping'. Hold down the Alt (PC) or Option (Mac) keys and hover the cursor between the two layers you want to group within the 'Layers' palette, and the cursor will change identity to indicate the function.

■ *You may not always want all underlying layers affected, and in this case you'll find that group clipping is the answer*

SAYWHAT?

HSL
Hue, Saturation and Light sliders are common throughout Photoshop for controlling colour, intensity and brightness. Through this combination of sliders virtually any colour can be recreated.

MASK
An invisible image based on the 256 greyscale colours that determine if a linked layer is visible. The thumbnail shows visible areas as white; hidden ones as black. Varying shades of grey provide different opacity levels in between.

Changing selective colours

There's no need to retake the shoot if a model's clothing doesn't match the colour scheme – just use Photoshop to sort things out...

Quick work

The end results are impressive considering the time taken. If selecting regions through the thumbnail proves too clumsy, use the 'Eyedropper' tools directly on the image instead

Something blue

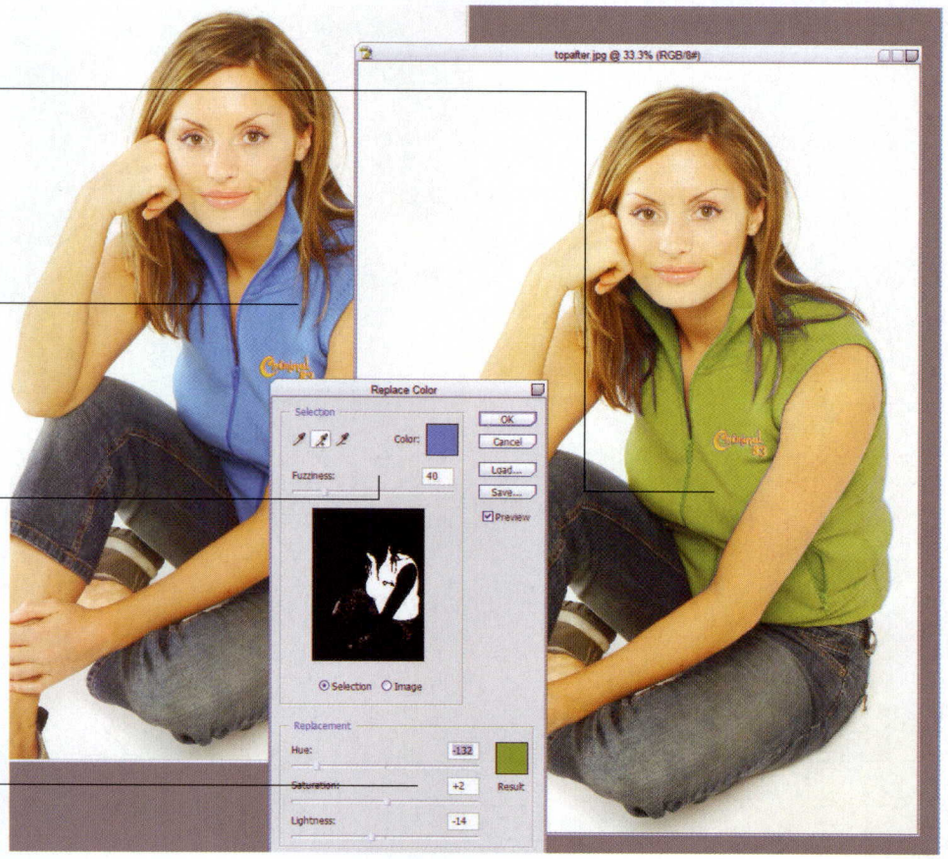
The original image features the model in a lovely pale blue number which is fine for a children's TV presenter, but we need something a little more sophisticated

Replace Color

The 'Replace Color' feature found under the 'Image', 'Adjustment' menu is just the tool. The 'Eyedropper' tools at the head allow specific colours to be selected and masked...

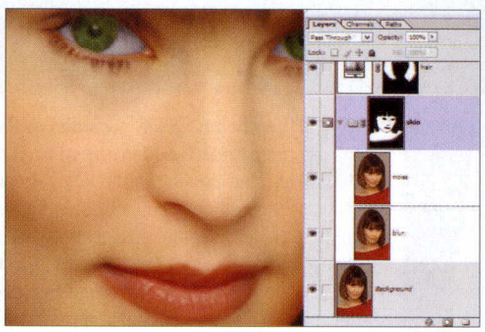
HSL sliders

...while the foot of the interface provides the usual HSL sliders allowing you to replicate any colour you choose for application to the original image in a matter of seconds



16: Mix and match

Apply the 'Add Noise' filter to the appropriate layer with '10%' Gaussian distribution and checking the 'Monochromatic' option. Hide the 'Noise' layer and apply a Gaussian blur of '15' pixels to the 'Blur' layer. Bring back the 'Noise' layer and reduce the opacity to around 50% for softer skin.



17: Bring back the detail

Because this results in finer detail being affected, add a mask directly to the layer set and paint back any areas such as the hair, eyes, mouth, background and clothing that should remain sharp. You can also use this method to define the shape of the nose and jaw, for example.

18: The final results

Once all the changes have been carried out, you can review them in context of each other and make further overall adjustments overall to get the best balance. We've deliberately left a slight colour cast over the skin to complement the reds and enhance the contrast of the eyes.

[writer: Mark Shufflebottom | hardware: Apple iBook G3 | software: Adobe Photoshop 7.0]

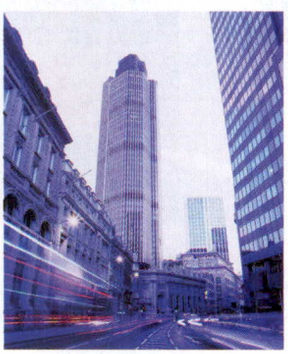
CREATE ARTWORK WITH MASKS

Cutting out with masks and colour channels may be anathema to many Photoshop users, but sometimes it can be the most effective way to composite your images

We placed this jumping man in this image with a variety of tools, but colour channels were our starting point

ON THE CD

circle1.eps
sky.psd
circle2.eps
thecity.jpg
composition finished.psd
tubes.tif
jump3.jpg



In this tutorial we'll use masks to combine the two images pictured above

Photoshop is widely regarded as the best image editor on the market, but it can do so much more and in so many more ways than most people imagine. For instance, there are a myriad of selection tools that a lot of people will never bother to explore.

To cut the foreground subject out in this workshop, it's a good idea to use the 'Channels' palette to find the channel with the most contrast between the subject and the background. This allows you to enhance the edges to make the matte selection easier. The next step is to place the image into a new image, while desaturating the colour to make the two pictures look as though they belong together. After this, it's a matter of enhancing the skyline and adding various zoom blurs to help reduce some of the detail and smooth out the image. As a final touch, we'll add a couple of layers of illustration from 3D and 2D sources to help bind the image together.

Photoshop-savvy as most of us are, we know that models don't always have perfect skin, and that the camera is capable of the odd white lie. In fact, so many of the images you see these days consist of different images digitally married together. It's up to you whether you draw your audience's attention to the joins or pull the wool firmly over their eyes. Read on, as we delve into compositing. ■

SAYWHAT

MASKS
A mask is any part of an image that can be used as a selection that allows you to select part of an image and either manipulate it or move it to a new layer. Masks can also be used to hide parts of a layer or show parts of a layer so that only certain detail can be seen.

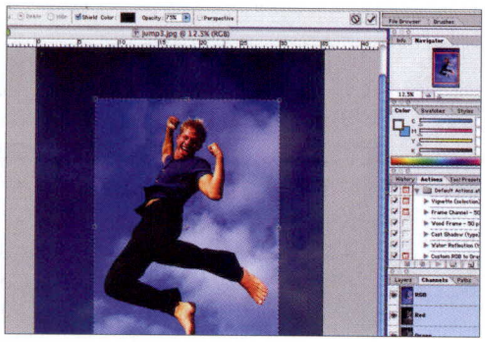
CHANNELS
Channels have nothing to do with TV but are made from the colour mode of your image such as RGB being Red, Green and Blue or CMYK being Cyan, Magenta, Yellow and Black. Extra channels, known as Alpha Channels, can be created which Photoshop that will not show by default but can contain masks

YOURGUIDE

MARK SHUFFLEBOTTOM is a regular contributor to a variety of magazines, including *Practical Web Projects* and of course, *DCA SE*. When he's not writing, you can find Mark teaching on the BA (Hons.) Interactive Media course at Bournemouth University. You can also view an online portfolio at his personal Web site **www.markjsb.co.uk**

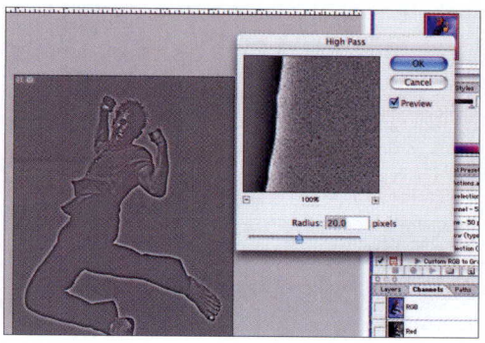
Step-by-step: a cut-and-paste job

Once you've got the files from the cover CD you're ready to start compositing your image



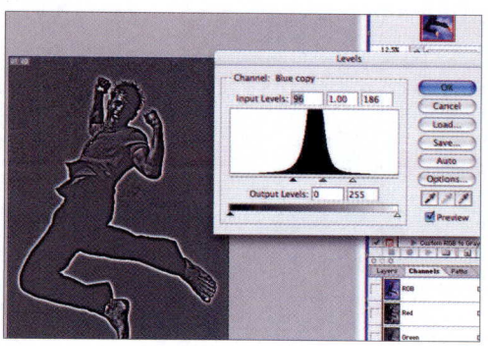
1: Getting started

Open the 'jump3.jpg' file from the cover disc in Photoshop. From the toolbar, grab the 'Crop' tool and drag around the man as shown on the screen and double-click to crop. Open the 'Channels' palette, as this will be used to extract the image from the background.



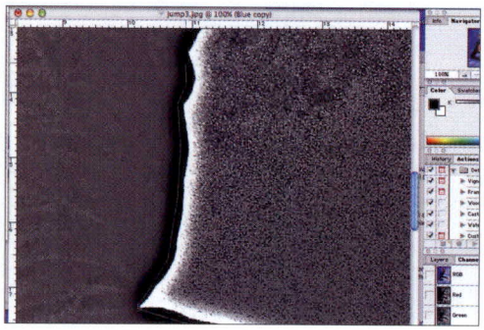
2: High Pass

Select the blue channel and drag it down to the 'New channel' icon to copy the channel. With the copied channel selected, we need to define the edges clearly, so go to the 'Filter' menu and use 'Other' and then 'High Pass'. Set the 'Radius' to around '20 pixels' and then click 'OK' to apply.



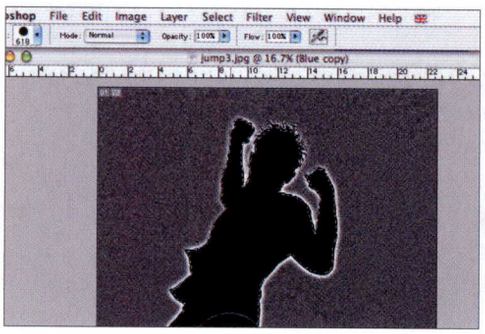
3: Adjust the levels

The levels will need to be enhanced to define the edges even more. Go to the 'Image', 'Adjustments' and 'Levels' menu and, in the pop-up window, drag the black and white sliders on the input levels in from either side so that the image looks like the one above. Click 'OK' to apply.



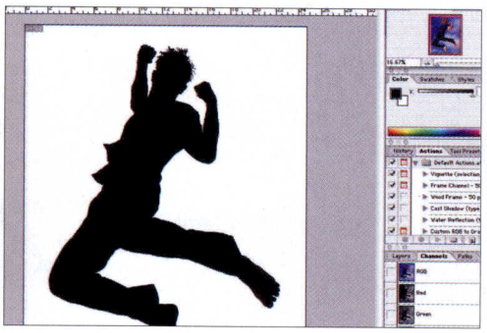
4: Select the edges

Zoom in on the image to '100%' and select the 'Polygon lasso' tool and 'move click' around the edge of the image on the inside of the black part to select all of the man. The left-hand arm is a bit tricky as the black is quite faint, so make sure you select inside the arm.



5: Paint it black

It will probably take you a while to go around the edge of the image, but it's worth doing carefully. Once you've got it selected choose a large brush, make sure your foreground colour is black and then paint in the centre so it is completely black with no shades of grey.

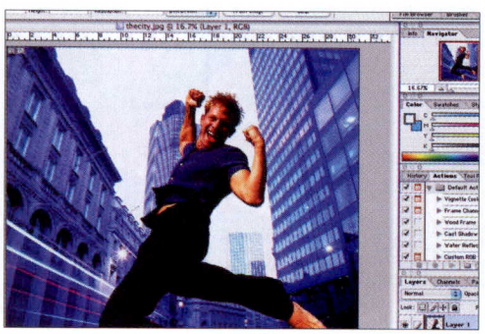


6: Select the white area

In the same way that you selected the black area, go around the edge with the 'Polygon lasso' and choose the white area. When you have finished, choose 'Select Inverse' from the 'Select' menu and make sure white is your background colour. Press 'Delete' to remove the outer noise.

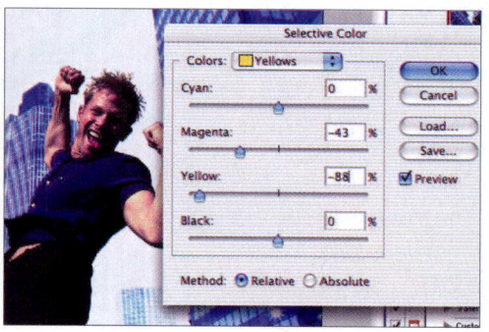
7: Paint in the detail

Click on the 'Eye' icon by the RGB image to turn the image on and your blue copy channel will turn red. Use a brush with black as the foreground colour to paint in any odd details that you might have missed. This is useful for painting in the arm edge that wasn't very easy when first selecting the black.



8: Select and drag

In the 'Channel' palette, click on the icon to load the channel as a selection and now choose 'Select Inverse' from the 'Select' menu. Open 'thecity.jpg' from the cover CD and drag across the man to the image using the 'Move' tool. The man will appear as a new layer.

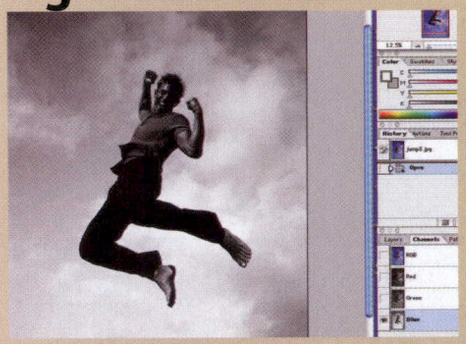


9: Colour correction

The man is a little over-saturated for the background image, so choose 'Image', 'Adjustments' and 'Selective Computer'. Under the red menu, change 'Cyan' to '+85', 'Magenta' to '-25' and 'Yellow' to '-57'. Now change the 'Drop' menu to 'yellow' and copy the details as shown above.

CREATE ARTWORK WITH MASKS

Making the right selections

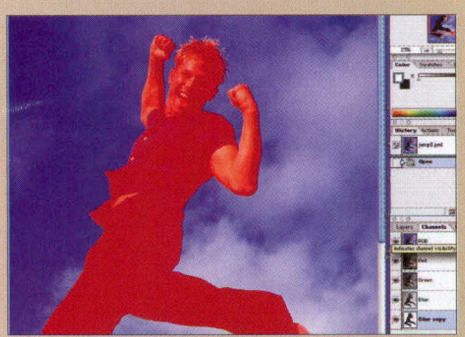


Why the blue channel?

You may have wondered why we used the blue channel in the first place. Well, look at the other channels and you'll see that the blue channel has the greatest contrast. Whenever you want to create a selection in this way, pick the one with the greatest contrast.

What is High Pass?

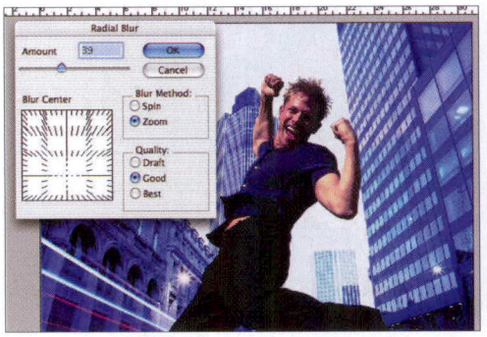
The 'High Pass' filter helps to define the edges further when working with creating a selection, which makes it a handy tool indeed. Other filters which might be of similar use will be the 'Find Edges' or the 'Sharpen Edges' ones, which will help you locate the edge of the matte.



Why the Polygon Lasso?

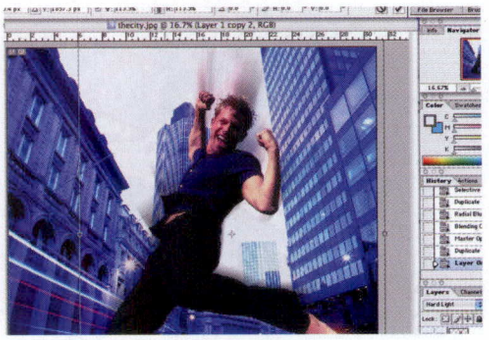
Because the edges have been enhanced with 'High Pass', the 'Polygon Lasso' tool can be used to easily find the thick black and white band around the edge of the image. This still takes time, but it makes the job much easier and is particularly good on difficult areas such as hair.

Continued...



10: Copy the layer

Drag 'layer 1' to the 'New layer' icon to copy the layer, and go to the 'Filter' menu and choose 'Blur', 'Radial blur'. In the pop-up window change the 'Blur' to 'Zoom' and change the amount to '40'. Click in the 'Blur Center' window, drag the centre down to be in line with the road and click 'OK'.

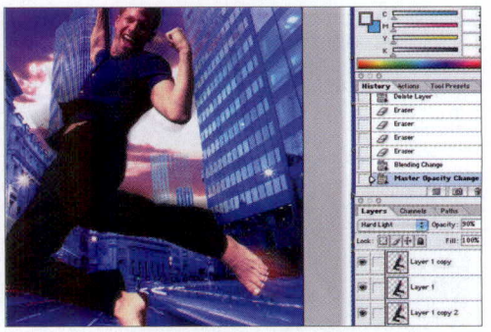


11: All in the blend

Change the layer 'Blending' mode to 'Hard light' and reduce the 'Opacity' down to '50%'. Copy the layer and drag it behind the original man. From the 'Edit' menu, choose 'Transform and Scale' and then 'Shift-click' the corner to scale up so that your image is like the one shown above.

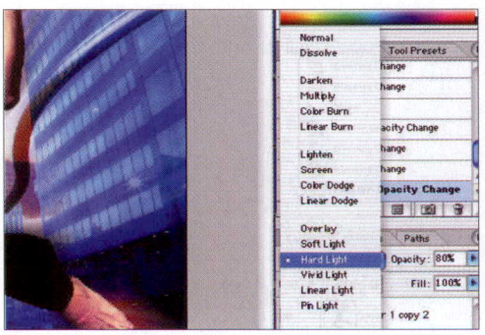
14: Copy and paste

Click 'OK' to create a selection and turn the visibility of the sky layer back on. Press 'Ctrl+C' to copy the sky selection and then 'Ctrl+V' to paste to a new layer and discard the old sky layer. You can turn the visibility of your other layers back on again to see the man.



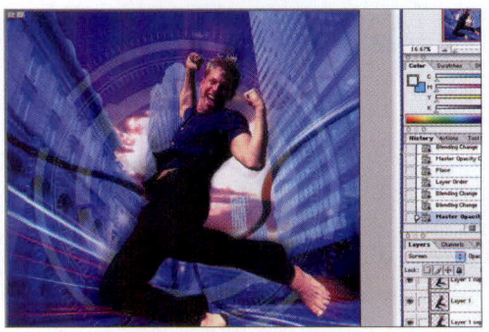
15: Erase and desaturate

Use the 'Eraser' tool to erase the sky in the streaks of light and street lights in the lower half of the image. It's effective to leave it on the windows because it looks like a reflection. Once the excess sky has been erased, change the 'Blending' mode to 'Hard light' and reduce the 'Opacity' to '50%'.



18: Blend the layer

Change the 'Blending' mode of the tubes layer to 'Hard Light' and reduce the opacity to '80%'. Make sure that this layer is directly above the zoom blurred background. Now we're going to add a few finishing touches to the image, so go to the 'File' menu and choose 'Place'.

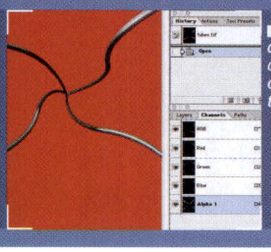


19: Place the circle

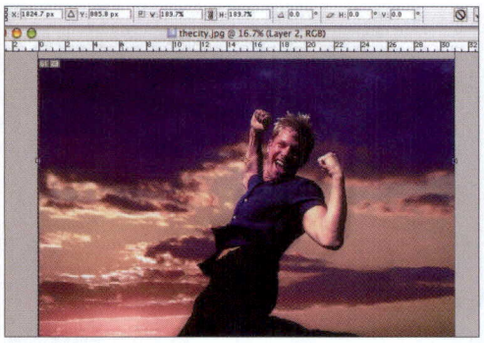
Select 'circle2.eps' from the cover disc and scale up the image by holding 'Shift' and dragging the corner handles. When it's the right size, double-click to import at that size. Change the 'Blending' mode to 'Screen' and reduce the 'Opacity' right down to just '10%' to make it more subtle.

Moon Base Alpha

The alpha channel is not something left over from an episode of a cult Seventies sci-fi series, but is a channel which contains information about a selection and semi-transparent areas and shapes. The 'tubes' image has an alpha channel included, and if you follow the early steps of the workshop you'll create an alpha channel when you copy the blue channel. Feel free to rename it 'Alpha channel' if you want to, but it doesn't matter what it's called as long as the information can be used to create a selection.

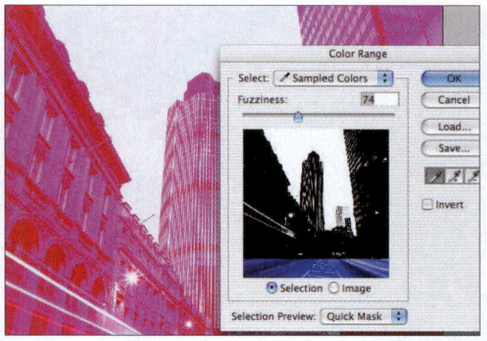


The alpha channel contains an image which is a perfect cutout of the full image



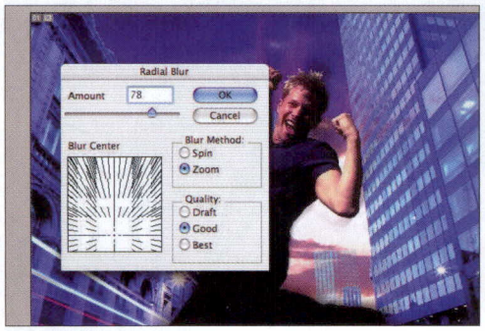
12: Add some sky

The problem with the image is that the sky looks wrong, so let's add a slightly more impressive skyline. Open 'sky.psd' from the cover CD and drag across into your composition. Choose 'Transform and Scale' from the 'Edit' menu and scale up, holding 'Shift' to keep the proportions.



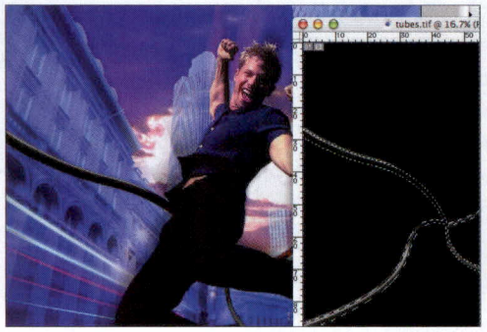
13: Change the order

Drag the sky layer so that it is just above the background and turn off the visibility of every layer except the background by clicking the 'Eye' icon in the 'Layer' palette. From the 'Select' menu, choose 'Colour Range' and in the pop-up menu, click in the sky as shown above.



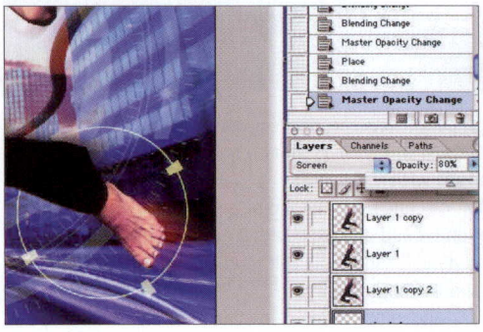
16: Zoom the background

Copy the background layer and go to the 'Filter' menu, choosing 'Blur' and 'Radial Blur'. Change the 'Zoom blur' radius to around '78' and click 'OK'. When the blur has been applied, reduce the 'Opacity' of this layer down to '60%', which allows detail from the original layer to be seen.



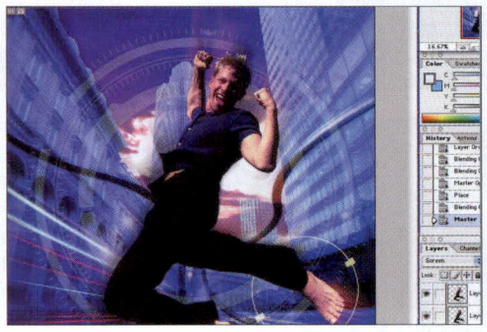
17: Add some tubes

Open the file 'tubes.tif' from the cover disc. Choose the 'Select' menu and 'Load Selection' and now choose the 'Alpha' channel to load. Click 'OK'. With the 'Move' tool, move the tubes to the composition image and scale up proportionally to fit as you did with the sky layer.



20: Place another circle

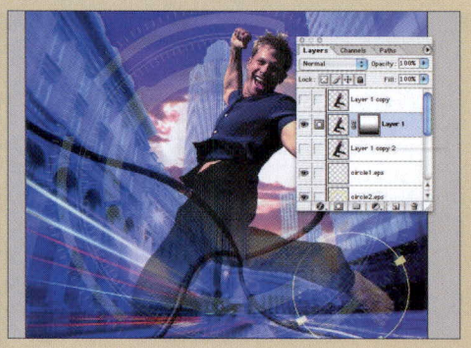
Choose 'Place' from the 'File' menu, but this time choose 'circle1.eps' from the cover disc. Once again, scale up the image proportionally before double-clicking to place at that size. Change the 'Blending' mode to 'Screen' and the 'Opacity' to '80%', positioning it as shown.



21: Save the image

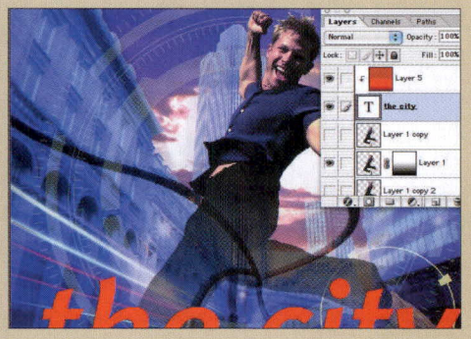
Your finished image can now be saved. If you are going to print it, you will need to flatten the image, convert it to CMYK and save it as a TIFF. It's always wise to save a layered version as well as a flattened version, just in case you want to alter any of the layers again later.

More essential advice for masks



Layer masks

Clicking on the 'Mask' icon in the 'Layers' palette will add a mask to any layer. If you paint with the black paintbrush, the black area will become invisible. You can use the 'Gradient' tool to create blends between two images, as shown in the image above.



Layers as masks

To use a layer as a mask, first create a layer to be fully visible – the text in this case. Create another layer over the top and, on this layer, add a colour texture or image to be masked. Now hold down the 'Alt' key and click between the two layers to create a mask.

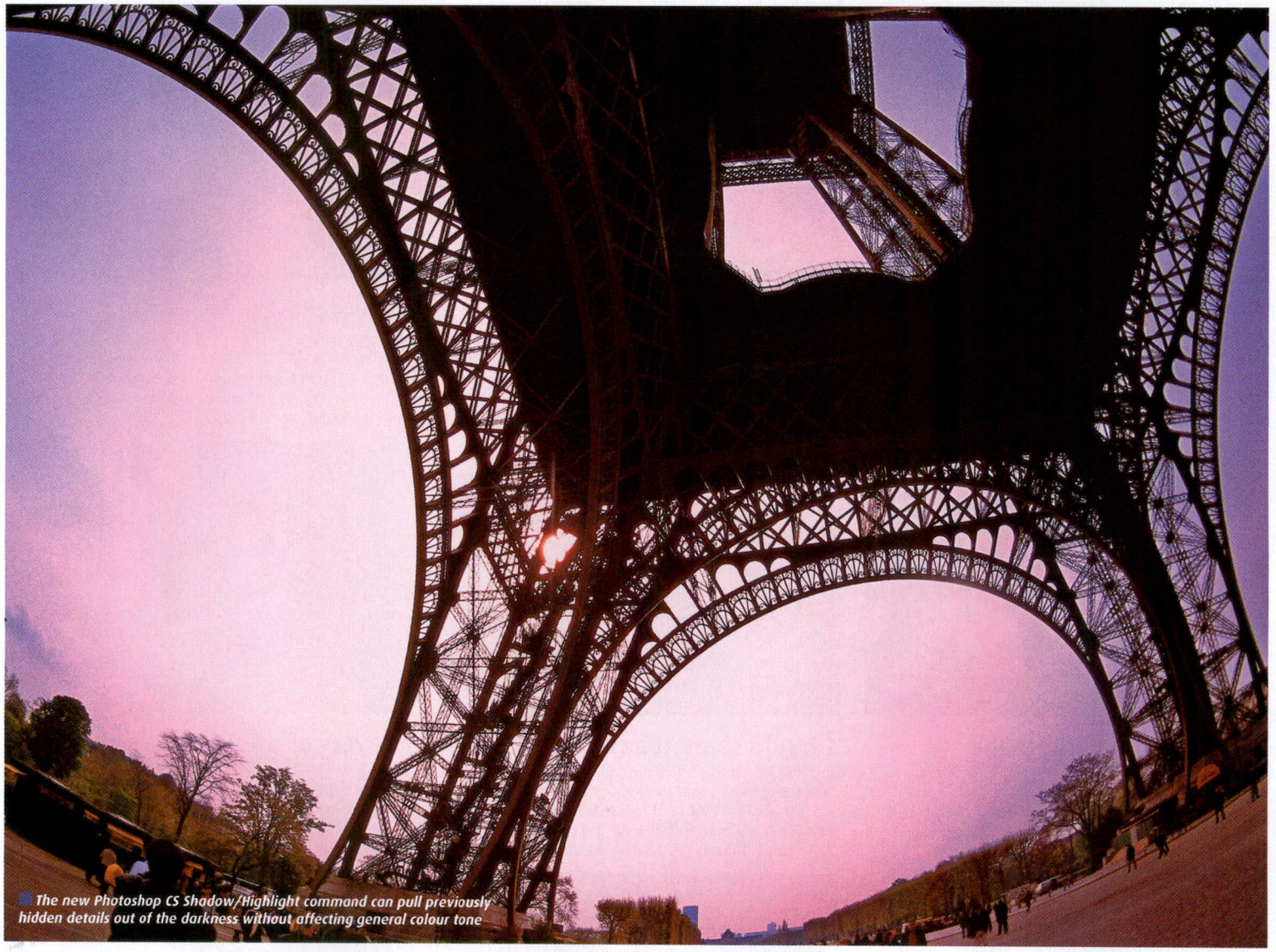
Moving masks

Any of the previous two masks can be moved. The 'Layer' mask can be ungrouped from the layer and moved independently or even removed. The layers as masks can be moved separately by selecting the layer and moving it. This is really helpful when creating compositions.

[writer: Andy Stewart | hardware: Apple eMac | software: Adobe Photoshop CS]

CORRECT EXPOSURE WITH SHAD

Every photographer will know how incorrect exposure settings can ruin a good shot. Put them right fast with the powerful new Photoshop CS adjustment filter



The new Photoshop CS Shadow/Highlight command can pull previously hidden details out of the darkness without affecting general colour tone

ON THE CD

Eiffel.jpg
Eiffelfixed.jpg

In the original shot, the ground detail was obscured by shadows

Shooting photos in tough conditions can turn up many unforeseen problems, so to get the most innovative shots a good photographer has to be prepared to experiment with exposure.

While there are many things that can and do go wrong in photoshoots, one of the most common bugbears is that of under and overexposure. When capturing images with strong contrasts between light and dark, it can be difficult to ensure that the camera evenly exposes both the subject and the background.

With the release of Photoshop CS, Adobe has made correcting poor photo lighting a whole lot easier with the all-new 'Shadow/Highlight' command. Through adjusting sliders on the straightforward interface, it is now possible to bring detail back from the darkness and increase the definition of highlights without having to mess around with complicated panels and histograms. All the hard work is done behind the scenes, leaving you free to focus entirely on the live preview and adjust settings until you have the right balance. ■

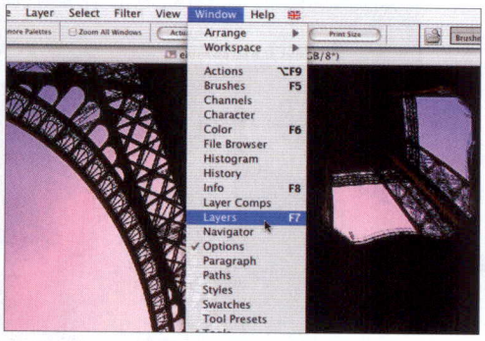
OW/HIGHLIGHT

YOURGUIDE

ANDY STEWART is a trained multimedia journalist and has been using Photoshop since the year dot to complement his love of photography. Having recently made the switch to digital, Andy enjoys nothing more than messing around with images and creating works of digital art from even the most mundane material.

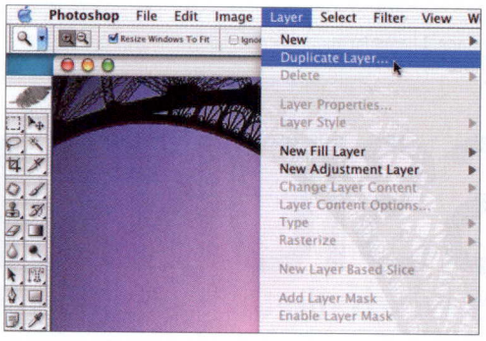
Step-by-step: bring out the detail with shadow/highlight

Restore an underexposed photo in no time with some clever adjustments



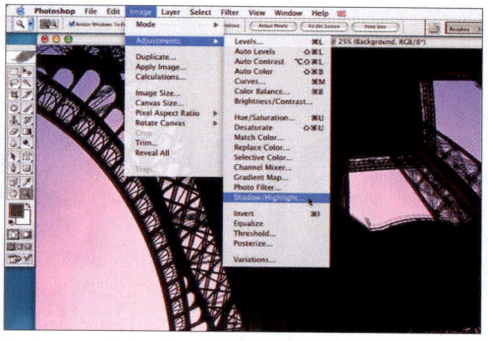
1: Open the image

Start Photoshop CS and load the 'Eiffel.jpg' image from the cover CD. We're mainly going to use the new 'Shadow/Highlight' adjustment to correct the photo, but first we need to make some layer changes. Bring up the 'Layers' palette by clicking 'Window', 'Layers'.



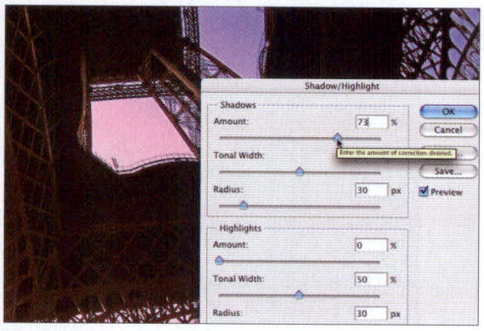
2: Seeing double

Later on we'll be merging two layers together, so first we need to make a duplicate of the original background layer. With the 'Layers' palette now open, click 'Layer', 'Duplicate Layer'. Click on the original background layer to make it active, and click on the new layer's 'Eye' icon to hide it.



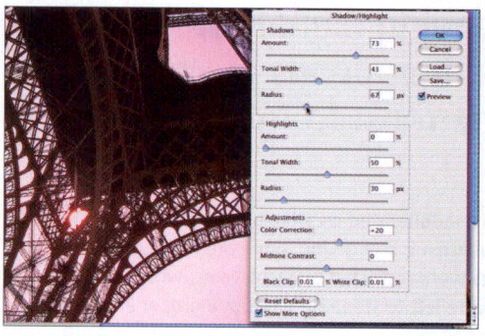
3: Start Shadow/Highlight

With the layers all set, it's time to correct the exposure. Grab the 'Zoom' tool from the toolbar and zoom into the main dark section of the tower. Go up to the top menu and choose 'Image', 'Adjustments', 'Shadow/Highlight' to bring up the 'Filter control' window.



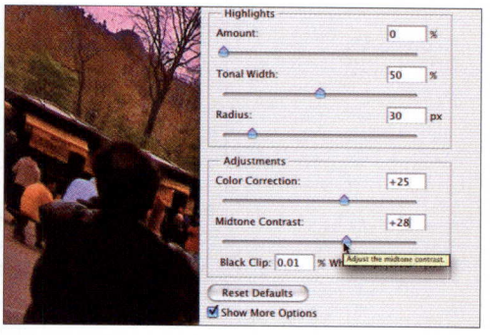
4: Out of the darkness

When the window opens, bring up the advanced controls by clicking on the 'Show More Options' tab at the bottom. In the 'Shadows' section, increase the 'Amount' value to '73%' with the slider, and notice that previously hidden girders and supports begin to reappear.



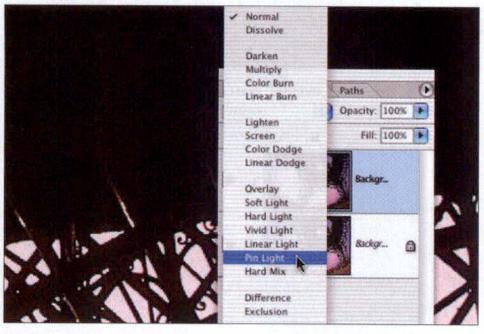
5: Make it sharp

When you increase the 'Amount' slider, notice that as Photoshop pulls out detail from the darkness, it also turns up a lot of nasty image noise. You can start to cut this down by reducing the 'Tonal Width' to around '43%', and whacking the 'Radius' up to '67 pixels'.



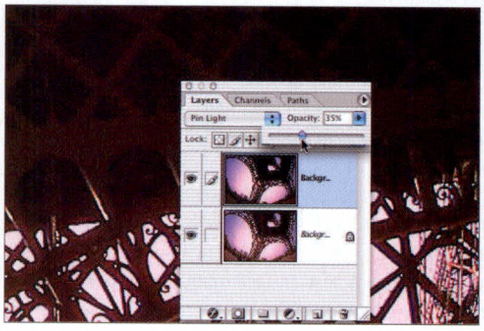
6: Fine-tuning colours

Along with the tower struts, the street underneath is also being lightened, so we need to adjust the colour settings slightly so that it still looks realistic. To do this, go to the 'Adjustments' section and set the 'Colour Correction' slider to '+25' and the 'Midtone Contrast' to '+28'. Click 'OK' to apply.



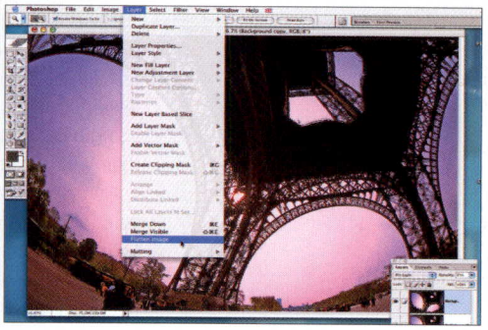
7: Blending layers

With the image detail corrected, it's time to lose that nasty digital noise. In the 'Layers' palette, click on the duplicate created in step two and click the 'eye' to make it visible. Now blend this over the fixed layer beneath by setting the 'Layer' palette 'Blending' mode to 'Pin Light.'



8: Drop the opacity

To complete the effect, the top layer needs to be blended into the one underneath just enough to kill the noise, without removing the lightened details. In the 'Layers' palette, grab the 'Opacity' slider and drag it backwards to about '35%', so the details emerge but the noise starts to fade.



9: Flatten it out

And that's it. The image is now corrected, with missing detail restored and digital noise kept to a minimum. The final thing to do is to flatten the two layers together by selecting 'Layer', 'Flatten Image', and then save it by clicking 'File', 'Save As'. That's all there is to it.

PROFESSIONAL TIPS

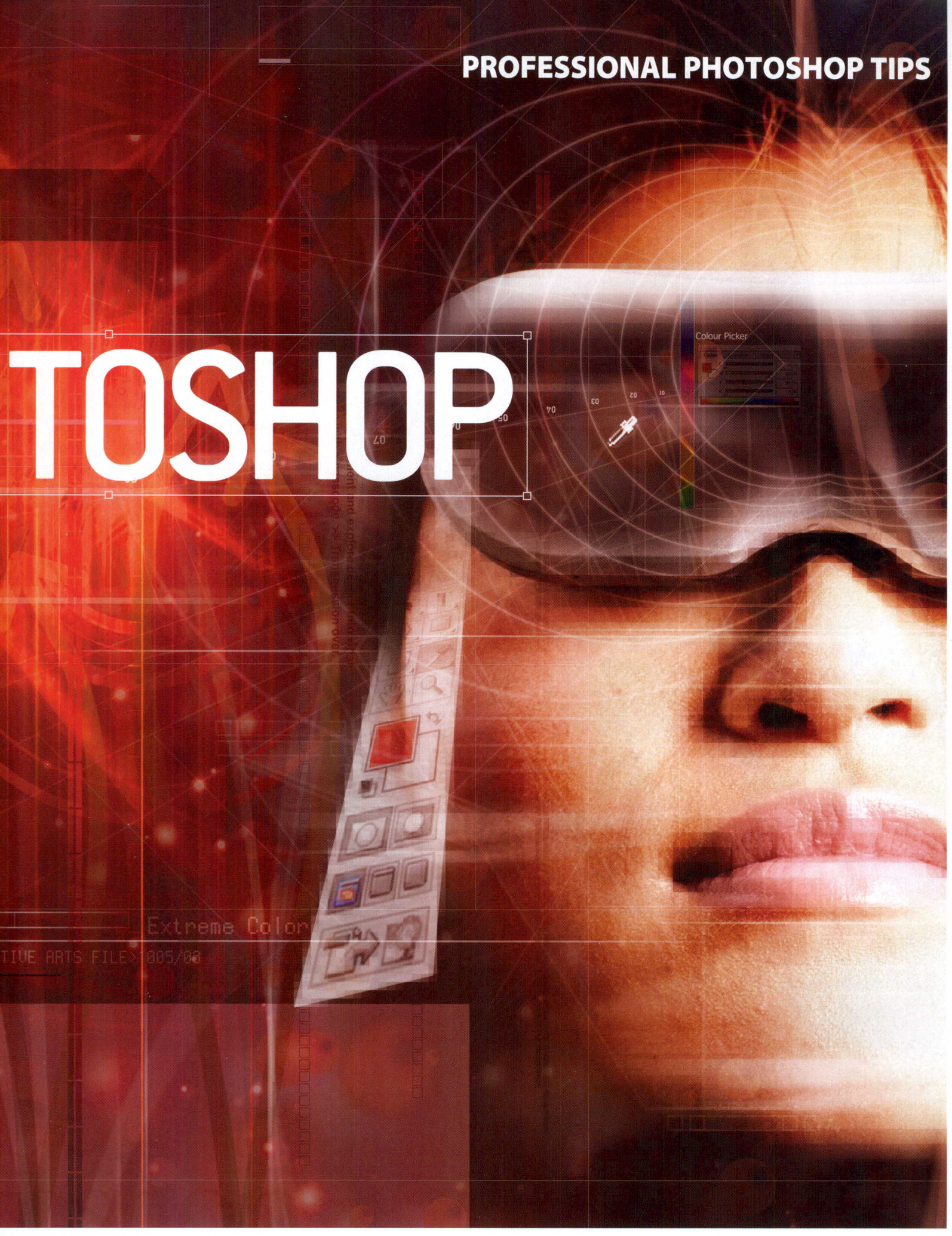
No matter which digital discipline you pursue, no matter how often you use Photoshop, there's always more that can be learnt from the professionals. **Andy Stewart** speaks to some of the world's leading digital creatives to bring you their pearls of wisdom for getting the most from Photoshop

The sheer, unadulterated creative power that Photoshop offers the digital artist is staggering. Gone are the days when innovators were restricted by weak tools, when grand designs were left to stagnate without a proper and purposeful method of expression. These days, artists armed only with Photoshop and a vision can mould their ideas into jaw-dropping works of art.

Be it retouching a digital photograph, adding photorealistic texture and details to a rendered 3D scene, compositing illustrations or producing design elements for Web pages or DVD interfaces, Photoshop is the program that can get it all done.

The only trouble is that with so many tools, filters, shortcuts and options for you to choose from, the creative process can sometimes be stifled by technology, making it difficult for users to bend the software to their art. Indeed, it's not until you've been working with Photoshop for a while that you can begin to unleash the program's full potential, and even then there's still a wealth of other tricks to discover.

No matter what your creative discipline, you should be itching to take your Photoshop skills to the next level. And for this you're going to need a little inside information from the professionals. To help increase your Photoshop know-how and present new and alternative ways of making digital art, we've tracked down the cream of the creative industry and coaxed them into revealing their secrets, all so you can raise your game. Covering the most important and innovative uses of industry image-editing, over the next five pages you'll learn how the experts harness the power of Photoshop to produce their art, as well as being let in on a few of their tricks. So turn the page and get ready to learn the methods, shortcuts and tweaks that can turn a mere image into a real masterpiece.


TOSHOP
Colour Picker
Extreme Color
TIVE ARTS FILE 005/06

PROFESSIONAL PHOTOSHOP TIPS FOR PHOTOGRAPHY

OCCUPATION: **Photographer and best-selling author**
WEB SITE: **www.reallyusefulpage.com**
CREDENTIALS: Gregory Georges is a photographer, digital artist and author. He is known for shooting everything from nature and wildlife to sports action photography. Gregory has written several best-selling books on digital cameras and digital imaging, including *50 Fast Digital Camera Techniques*, *50 Fast Digital Photo Techniques* and *50 Fast Photoshop 7 Techniques*. He is also a Contributing Writer for *eDigitalPhoto* magazine. His current projects include writing *50 Fast Photoshop Techniques*, a book specifically for photographers using digital cameras; and he is creating portfolios of irises, dragonflies, and Harley-Davidson motorcycles and their riders.

© Gregory Georges

1: CONTROLLING LIGHT AND DARK

When you have a very light image, you can increase density better by using the 'Multiply Blend' mode than you can by using a more damaging command such as 'Levels' or 'Curves'. Likewise, when you want to lighten an image, try applying a 'Screen Blend' mode. While you can duplicate the layer and change the blend mode, you can save memory by applying a 'Levels Adjustment' layer and then selecting either the 'Multiply' or 'Screen Blend' mode. This approach also lets you control tonal range with 'Opacity' and it makes it easy to apply the change selectively by using the layer mask that is automatically created with the 'Adjustment' layer.

2: CLIPPED LEVELS

When setting the highlight or shadow points with levels, it is often a challenge to determine exactly what points are being clipped. To get a 'clipped values' view of what parts of the image get clipped, press and hold Alt (PC) or Option (Mac) while moving the shadow or highlight slider in the 'Levels' dialog box. You can get the same view when selecting a specific channel. Once you try this, you'll do it every time.

3: MONITOR HIGHLIGHTS AND SHADOWS

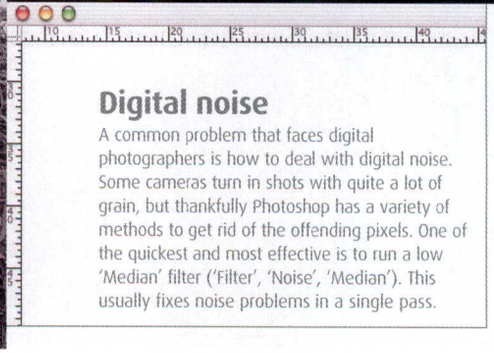
When you want to make sure that you do not 'blow out' highlights or lose detail in overly dark shadow areas, consider setting 'Eyedropper' sampler points and then monitor them closely on the 'Info' palette, where you can read both before and after values. To set a point, click on the 'Eyedropper' tool and click on the image. To remove a sample point, drag the sampler out of the document window, or hold down Alt (Windows) or Option (Mac) and click the sampler. You can even set points while using 'Levels' and 'Curves' – just remember to open the 'Info' palette before choosing them.

4: USE LIQUEFY TO FIX THINGS

Next time you take a portrait and the mouth is not quite right, or you'd like the eyes to be more open – nudge them with the 'Liquefy' command. You can

Full screen editing

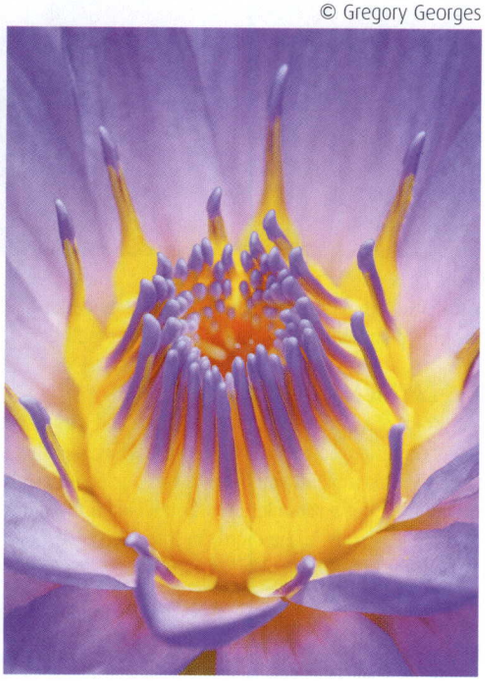
Working on digital images often needs you to move or hide palettes to get a better view of your work. Do this quickly by hitting 'Tab', or go even further by pressing 'F' to cycle through different view sizes until you get the combination you want.



Digital noise

A common problem that faces digital photographers is how to deal with digital noise. Some cameras turn in shots with quite a lot of grain, but thankfully Photoshop has a variety of methods to get rid of the offending pixels. One of the quickest and most effective is to run a low 'Median' filter ('Filter', 'Noise', 'Median'). This usually fixes noise problems in a single pass.

PROFESSIONAL PHOTOSHOP TIPS FOR ILLUSTRATION

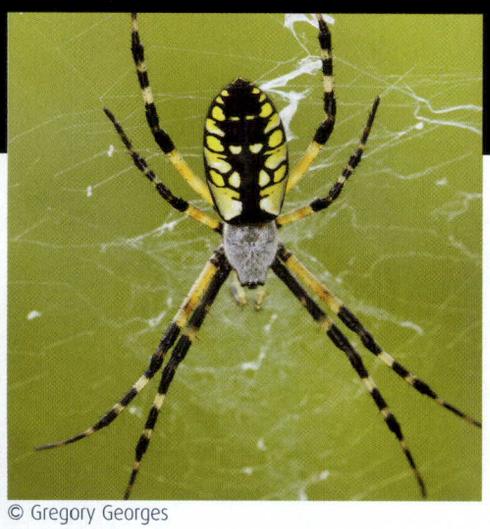


© Gregory Georges

even slim a waistline, reduce nose size or enlarge a chin this way. The 'Pucker', 'Bloat' and 'Warp' tools are just a few of the many useful treats found in the 'Liquefy' dialog box. If you have areas you want to protect, make sure you protect them with the 'Freeze Area' feature. This is a magical Photoshop feature that can do many, many things – try it.

5: ACTIONS, ACTIONS, ACTIONS

The more that you edit and share digital photos, the more you will want to learn to automate your work by using Photoshop's Actions. You can create these by simply recording your work. One very useful command for re-sizing images when used with an Action is the 'Automate Fit Image' command. This lets you set the maximum width and height for an image. When you use it in an Action you can easily and automatically resize images for a Web page or other purpose, regardless of whether they are vertical or horizontal images.



© Gregory Georges

OCCUPATION: **VP of Special Projects at CrossGen**
WEB SITE: **www.crossgen.com**
CREDENTIALS: Brandon 'Brando' Peterson has been in the comic book industry since 1990. A versatile artist, he has a reputation as a talented penciller, though he has worn the hats of writer, inker and colourist at various times in his career. He first got attention for his work for Marvel Comics on the *X-Men* books, and then later he was hired by Top Cow Productions, where he spent the majority of his career working on titles like *Cyberforce, Ripclaw, Medieval Spawn/Witchblade* and his creator-owned book, *Arcanum*. Just prior to coming to CrossGen he returned to Marvel, working on books like *X-Men: Magneto Rex* and *Astonishing X-Men*. His most recent comic work is an incorporation of traditional, digital and 3D techniques called Chimera.

1: COLOURING IN

The line-art in comic book artwork is still mostly drawn on paper with pencil and ink, scanned in, and then colour is applied in Photoshop. To do this, create a separate layer above the background layer for the scanned line-art, with that layer set on 'Multiply'. Now paint the background layer underneath it with your colours.

2: SPECIAL EFFECTS

Using this technique, apply separate glowing special effects on separate layers above both the background and line-art layers. This makes the effects easier to control and modify if you need to.

3: PRESSURE SENSITIVE

In digital painting, less is more. Try using a simple round brush set with variable opacity and size, and a pressure-sensitive tablet to do most of the work, with just a small amount of airbrush effects. Avoid over-using the fancy brush effects except where really needed.

4: STITCH TOGETHER

Incorporating 3D-rendered elements is great for dramatic effect. Using 3ds max with its 'Illustrate' plug-in, do two separate renders of the same image at the exact same size, one for colour and one for line-art. Then simply join these elements up in Photoshop on separate layers.

5: CUTTING BACK

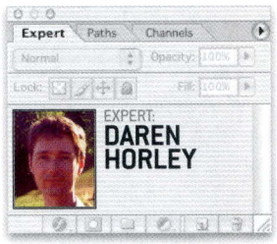
When you use 3D renders in illustrations, it's an idea to try to cut back on the 'super-rendered' quality of the images by blending them with manually created work. To do this, use the 'Smart Blur' and 'Paint Daubs' filters on the renders and then work them manually until satisfied with the results.

Custom brushes

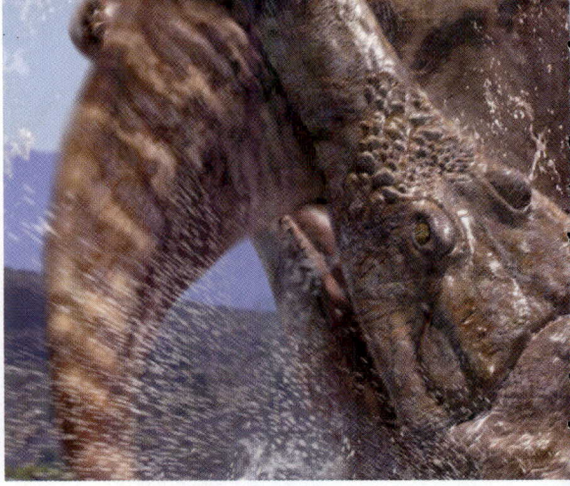
Photoshop 7 has proved something of a godsend for digital illustrators, as the new improved Brush Engine allows designers far greater control over brush settings. To call it up, click on 'Windows', 'Brushes'. To undock it from the 'Options' bar, simply click and hold on the tab and drag into the main window. This dialog lets you play about with 'Shape Dynamics', 'Texture', 'Scattering' and other effects to really open up your creativity.

© Brandon Peterson

PROFESSIONAL PHOTOSHOP TIPS FOR 3D TEXTURING



OCCUPATION: **Texture/Matte Painting Supervisor at Framestore CFC**
WEB SITE: **www.framestore-cfc.com**
CREDENTIALS: Daren trained as a traditional illustrator in the days before computers were used for painting. He worked as a freelancer for about ten years, and then did a brief spell in the computer games industry where he learned to use Photoshop. Joining leading UK visual effects company, Framestore CFC in 1997, Daren was put to work on the BBC's *Walking with Dinosaurs* series as texture painter. Having worked on all the *Walking with...* programmes since then, Daren has recruited a department that has now expanded into matte painting. The department now handles both TV and film work, with high-profile movie projects including *Dinotopia, Harry Potter and the Chamber of Secrets, Thunderbirds, Troy* and *Underworld*.



1: TEXTURE PAINTING

An alternative to using a texture brush in Photoshop is to find an image with suitable textural qualities. Use 'Color Range' ('Select', 'Color Range') to make a selection, create a new alpha channel in your artwork, copy and paste your texture selection into the alpha channel, load this as a selection (Ctrl-click on the 'Channels' palette thumbnail) and paint through the mask. This kind of brush effect is invaluable for texture painting. This was used on the *Thunderbirds* movie to put dirt and grime on the ship's hulls, but it's also a good method to add detail to the skins of creatures like the Basilisk in *Harry Potter and the Chamber of Secrets*. One of the reasons a rendered computer model will have that 'CG plastic' look is lack of detail in the texture maps – that airbrushed softness is fine for a stylised cartoon look, but when you are aiming for photo realism the level of detail often needs to be microscopic. Texture brushes are a big time-saver to achieve this.

2: ADDING DETAIL

If you want to add some noise detail to flat-looking artwork, drag another image into a new layer, then use a 'Layer' mode to achieve different effects and knock the intensity down either with levels or by lowering the 'Layer Opacity'. Use 'Layer Mask' to paint in the areas that need the effect and take it out where it's not needed. It's another method to achieve the results outlined above, but this also comes in handy for matte painting to add visual interest. It can help to harmonise two different photo references, and adds a common detail to both to help blend them together.

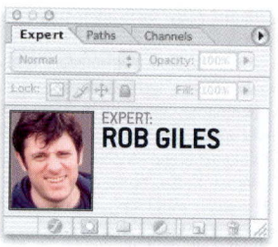
3: LAYER MANAGEMENT

A lot of layers increases the file size and makes things confusing, so try to merge layers into each other as much as possible. If you need to work on some pixels top right but not bottom left, rather than keep them on separate layers just mask them out. Use 'Quick Mask' (Q) to paint in soft or detailed masks.

4: DODGE AND BURN

Use the 'Dodge' and 'Burn' tools to paint texture directly into an image. This allows you to pull out or knock back existing detail in a very controlled manner,

PROFESSIONAL PHOTOSHOP TIPS FOR DVD INTERFACE DESIGN



OCCUPATION: **Producer/Director for No.Brake**
WEB SITE: **http://no-brake.com**
CREDENTIALS: Rob started out a seventh-generation land owner and potter, but broke tradition to go to film school instead. He made one movie on 35mm film and then left to open a garage. He later found out that the film was critically panned but admired for its visual approach. Changing tack, he became a freelance digital designer and in 2001 formed No.Brake Ltd and worked as designer and animator on the Super Furry Animals DVD, *Rings Around the World*, which went on to pick up a BAFTA. He has now just finished work on the latest Super Furry Animals DVD, *Phantom Power*.

1: USING SKETCHES

Hand-drawn sketches were used as the basis for the *Phantom Power* DVD interface – a total of 15 drawings created on normal A3 cartridge pages using an old media pencil. For originality, each sketch was a one-shot attempt – no preparation time was allowed for the artist to think through each design or create roughs, nor was any form of eraser allowed to get rid of any marks or mistakes. Rough-handled drawings make the surface of each page dirty; specks, scratches and smudges give interfaces fantastic texture.

2: SCANNING IN ARTWORK

When you have your drawings, scan each sketch into Photoshop ready for image manipulation. Although the final size of the images will be shown in broadcast screen resolution (72 dpi) it's good practice to scan them in at 300 dpi to give as much leeway as possible for resizing and cropping, especially if you will be exporting them into 3D software at a later stage.

3: EXPERIMENT WITH EFFECTS

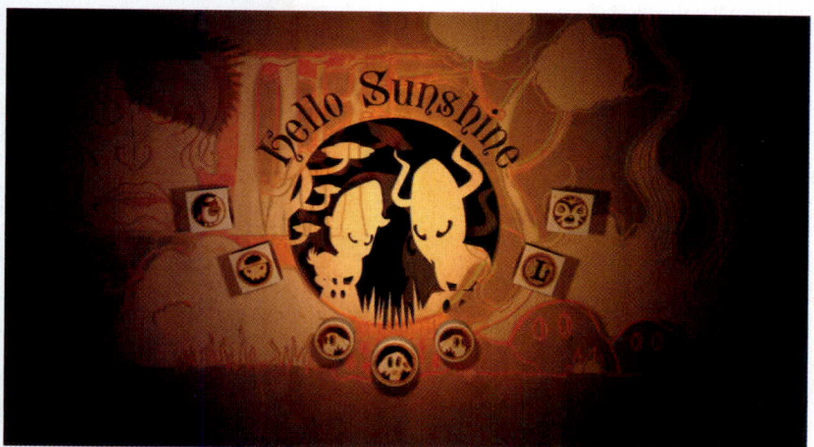
Although Photoshop offers a wealth of quick effects, don't be tempted to use just one-click tools or filters to get your finished look. A trained eye will recognise these in an instant, so to achieve real creativity in interfaces, use a combination of techniques and adjustments to build up a really individual feel and give things your own signature. We played around a lot with colour values and blending modes to make the *Phantom Power* DVD really stand out.

4: GENERATING TEXTURE

For that hand-drawn look, a great way of creating original textures for DVD interfaces is to open your scans as a normal layer in Photoshop (not a background layer) and play around with brightness and contrast settings to bring out as many imperfections and marks as you possibly can. Then invert the image ('Image', 'Adjustments', 'Invert') and further tweak these settings to bring out even more detail.

5: LIGHTING EFFECTS

There are many ways to add lighting effects to your DVD interface in Photoshop that will give a good finish to your design. For quick effects, use 'Filter', 'Render', 'Lighting Effects' and play about with different spotlight positions and intensities until you have created the desired arrangement. But for the best results, flatten your interface file and export as a TIFF for use in a 3D application such as 3ds max, which will allow you to add animation and accurately mapped lighting as we did with the *Phantom Power* DVD interface.



© No.brake

5: COLOUR CONTROL

You can use the 'Color Blending' mode of a brush to alter the colours in an image or to create a colour image from a black and white one. The same effect can be achieved by creating a new layer on 'Color' mode ('New Layer', and then select 'Color' in the 'Layers' palette) and using a standard brush, the advantage being that it's all kept on a single layer so things can be easily changed.

TV saturation

While you're creating your DVD interface, bear in mind that a TV screen will substantially increase colour brightness. To get around this, try desaturating your image before exporting it by selecting 'Image', 'Adjustments', 'Hue/Saturation' and sliding the 'Saturation' slider down to around '-20'.

Stone baked

With a powerful array of filters and tools, it's often easy to quickly make textures in Photoshop to use in your 3D work. By playing around with 'Cloud' and 'Posterize' filters, and adjusting 'Layer Styles' and 'Emboss' settings, you can make stunning stone and wood textures.

Square or wide?

When exporting your interface for use in DVD-authoring software, have a think about what size TV screen it's going to be viewed on. For standard PAL TV screens, resize your interface to 768 x 576 pixels ('Image', 'Image Size'), but if you want to see your interface fill a widescreen TV without distorting, resize it to 1024 x 576 pixels.

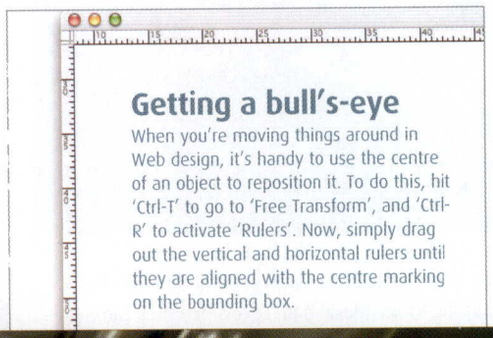
Choosing your focus

Getting focus right in 3D applications can be tricky. If you've finished rendering a scene but want to adjust focus to an individual object, use Photoshop's 'Selection' tools and 'Blurring' filters to do the job for you. To get a convincing depth of field effect, make a selection around your image subject, press 'Ctrl-Shift-I' to invert it, then use a 'Gaussian Blur' ('Filters', 'Blur', 'Gaussian Blur') of about four pixels to un-focus the background.

© Framestore CFC/Hallmark

PROFESSIONAL PHOTOSHOP TIPS FOR WEB GRAPHICS

OCCUPATION: **Web Designer/Digital Artist for Modernstyle.nu**
WEB SITE: **www.modernstyle.nu**
CREDENTIALS: A self-taught graphic designer, Per Gustafson started jamming with Photoshop back in 1996 and believes it was a combination of dogged determination and endless practice that got him to where he is today. In addition to being the founder of experimental art site and freelance brand Modernstyle.nu, he also runs the well-established Internet media company Geidemark Gustafson (GX2.SE), and has worked with high-profile clients such as Ericsson and Graphicscene. He is currently working on sending digital art out to the masses through his clothing label, Sonic Nerve.



Getting a bull's-eye

When you're moving things around in Web design, it's handy to use the centre of an object to reposition it. To do this, hit 'Ctrl-T' to go to 'Free Transform', and 'Ctrl-R' to activate 'Rulers'. Now, simply drag out the vertical and horizontal rulers until they are aligned with the centre marking on the bounding box.

1: USING GRADIENTS

Simple yet powerful, the 'Gradient' tool (G) can lift a site interface design quite radically and really set it apart from the crowd. It was used at sonicnerve.com in a smooth grey fade just to fill out the emptiness that appears onscreen when the site is viewed in a high screen resolution. Always bear this in mind when you are designing sites – people will see different things depending on their hardware and software settings.

2: BALANCING COLOURS

Use the 'Color Balance' tool ('Image', 'Adjustments', 'Color Balance') to experiment with colours. You can change the look of your entire site this way, as it can be used on separate layers or across the whole stack, and you'll often find a better blend of colours than the ones you originally used. Also use it when you're having problems seeing if different colours fit together.

3: BEND IT, SHAPE IT

With the Free Transform tool ('Edit', 'Free Transform') you can bend and warp objects and light effects into different shapes. It's useful for most kinds of digital work, but it can be a bit tricky to get the perspectives right at first and make it behave the way you would like. But stick at it. Once you've learned to control this tool you can set your objects in whatever shapes and positions you need for your design.

4: CREATIVE BLURRING

Blur effects are very useful when creating light in Photoshop and are a great way of adding depth to your Web site. Use it in a separate layer to control the intensity of the blur while keeping the rest of the image in focus. The trick is to use blurs in several layers, where you have the strongest blur below all light layers, and increase the effect the higher you go in the layer order. To get a stronger illusion of depth, use the 'Gaussian Blur' on the background layers, otherwise choose 'Radial' and 'Motion' blurs to set the effect in a specific angle or give your site design a feeling of movement.

5: MATCHING TONES

'Brightness/Contrast' is an adjustment you can use to get separate Web site objects to match tones. It's also a great way of controlling special effects like lights and explosions, as you can easily make them stronger by turning up the contrast. All you have to do is select an object or layer and choose 'Image', 'Adjustments', 'Brightness/Contrast' and notch up the sliders until your Web site elements become more energetic. ■

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THE CREATIVE MAGAZINE FOR MAC USERS

switch to...

The creative magazine for Mac users
iCreate™
GET STARTED WITH PANTHER
NINE PAGES OF TUTORIALS TO HELP YOU LEARN THIS STUNNING NEW VERSION OF OS X
POWERBOOK G4
FIND OUT WHY APPLE'S LAPTOP IS THE KING OF THE PORTABLES IN OUR SPECIAL REPORT
OUTSIDE THE BOX
DIGITAL PHOTOGRAPHY SPECIAL
SHOOT TO THRILL
Discover how to get the most from your digital camera and digital images
Image editing excellence
Expert advice for every iApp
FREE CD-ROM INSIDE

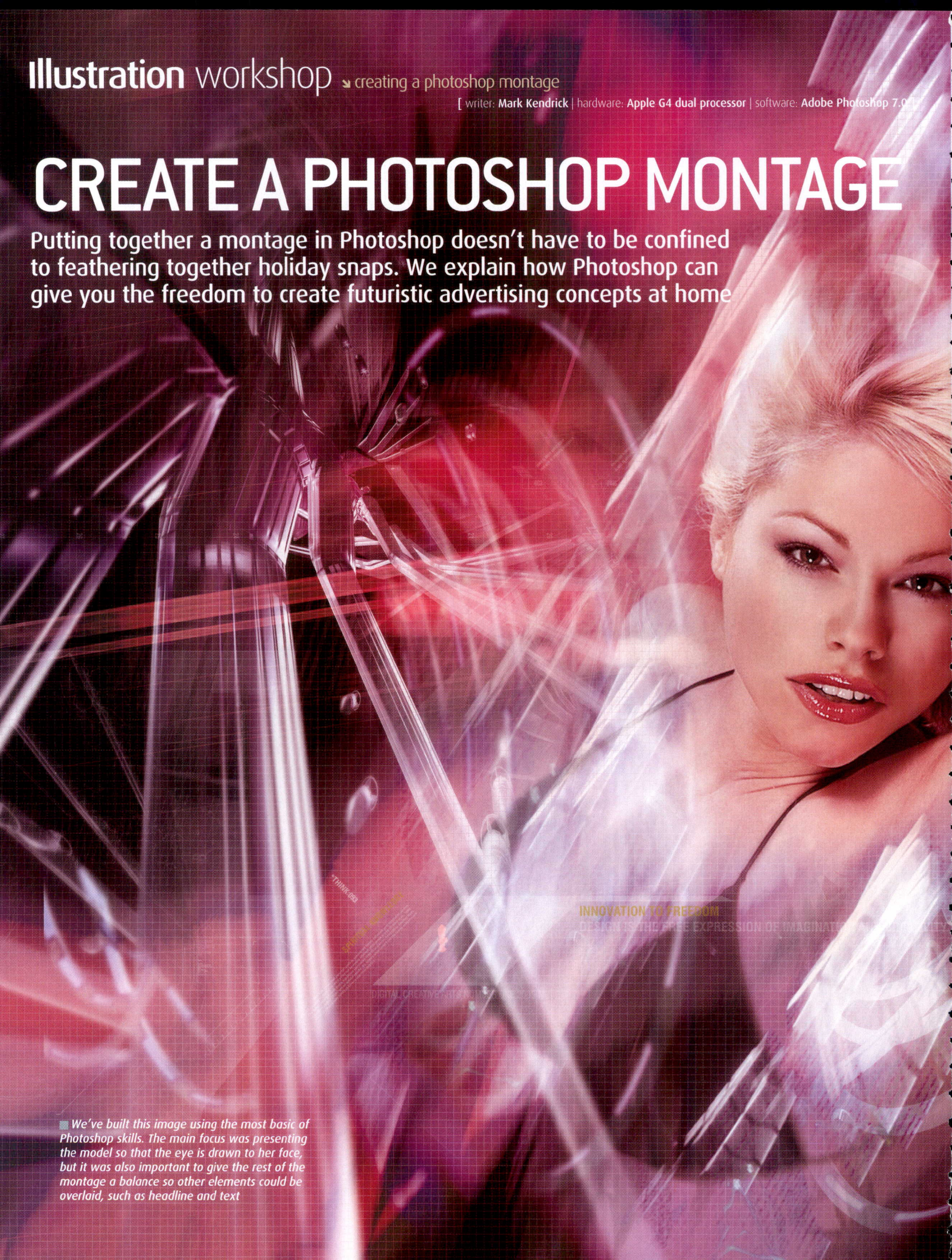
Issue Four On Sale

NOV 27

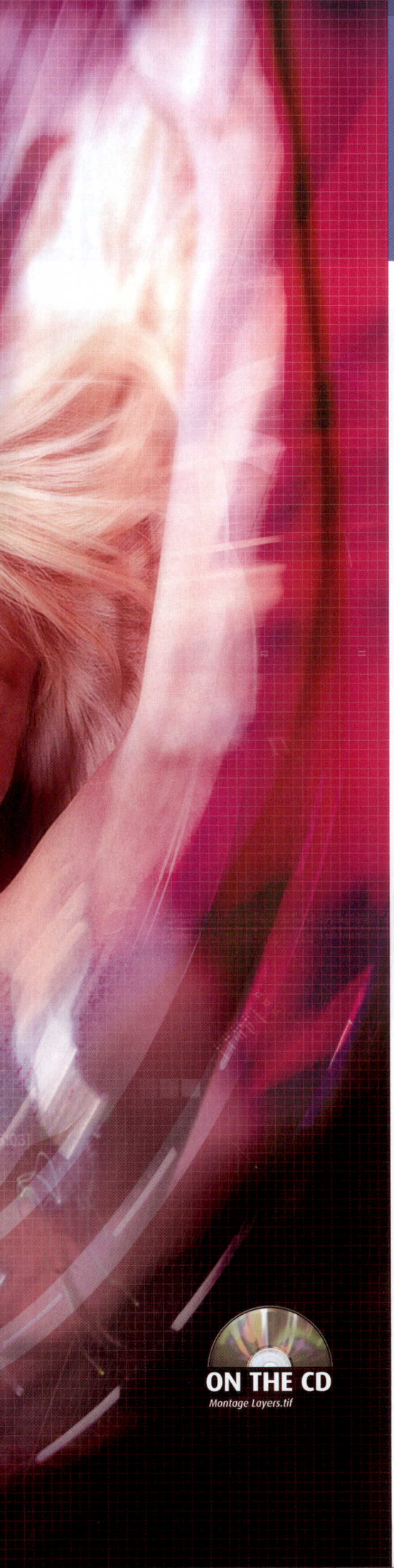
[writer: Mark Kendrick | hardware: Apple G4 dual processor | software: Adobe Photoshop 7.0]

CREATE A PHOTOSHOP MONTAGE

Putting together a montage in Photoshop doesn't have to be confined to feathering together holiday snaps. We explain how Photoshop can give you the freedom to create futuristic advertising concepts at home



We've built this image using the most basic of Photoshop skills. The main focus was presenting the model so that the eye is drawn to her face, but it was also important to give the rest of the montage a balance so other elements could be overlaid, such as headline and text



ON THE CD
Montage Layers.tif

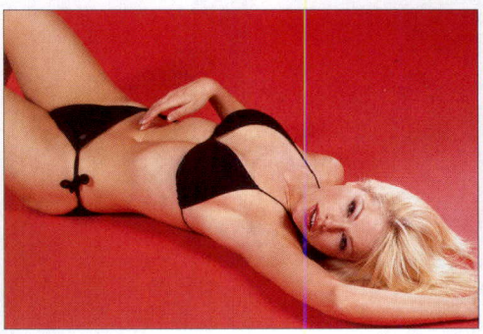
YOURGUIDE

MARK KENDRICK is Art Director of Highbury - Paragon Ltd. With over 17 years of corporate and magazine design experience, his credentials stretch back to the mid Eighties, where his work included the legendary computing titles *Crash* and *Zzap! 64*, as well as concept design. He has launched over 100 magazines.

Say the word 'montage' to a designer and you'll see an instant look of dread. Photoshop has been around long enough now for professional designers to have witnessed the horror of the Photoshop montage when placed in the hands of the 'willing amateur'. You know the sort. They get a bunch of holiday snaps, feather them together and plonk them on an A4 document which gets printed out on their less-than-perfect inkjet and finally slapped onto their kitchen wall. As a result, montage has become a dirty word in some circles. But it needn't be like that. A montage can be any amalgamation of images put together to produce a single piece of work, whether it's for artistic or information purposes. It's how the images are chosen and how they work together that is the key to the whole process. Photoshop is just the medium between the processes. Here we show you how basic techniques can be used to great effect.

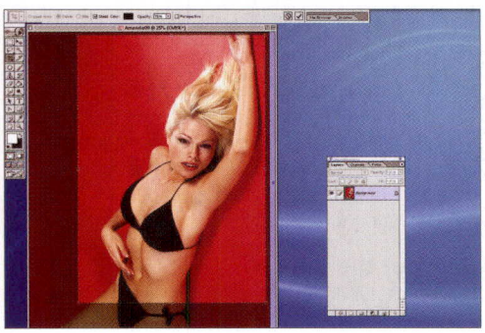
Step-by-step: prepping your images

Source material is all-important in putting together a montage. Choosing and cleaning up your images beforehand is essential for building up layers quickly



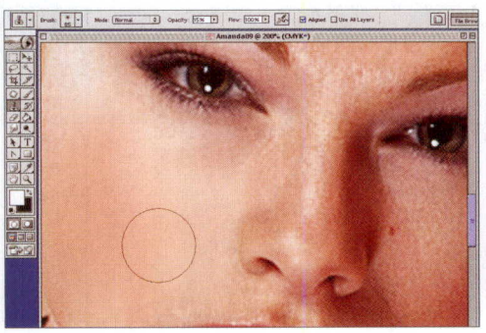
1: A concept with two aims

We needed an image that could demonstrate how you can create a montage as a piece of art rather than a bunch of images pasted together. At the time, we wanted a cover image as well as a generic art piece, so we decided on a model which would work in terms of identity and eye contact.



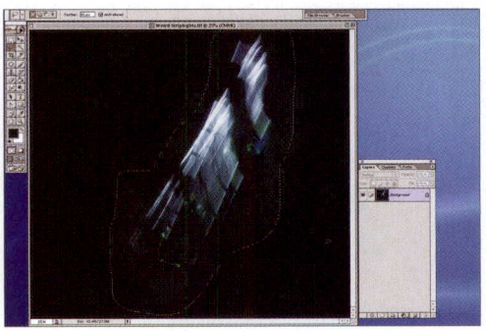
2: Finding the right model shot

Our model image came from an earlier photoshoot. The image was landscape, with the model lying down, but her expression was perfect, and the hair had great energy. Before it could be worked on, though, it needed cropping and rotating to fit into the area we wanted.



3: Clicky clicky skintones

The image was shot on 35mm film and therefore had lots of film grain. Although you can let this go in some instances, it's worth cleaning it up if you want a professional finish. Using the 'Clone' tool set to '15%' opacity, we clicked over the skin until we got a smooth finish.



4: Montage elements creation

Montage elements were created and prepped from a variety of places. Some from image libraries, others shot with a digital camera and enhanced in Photoshop. This sci-fi fantasy feel needs lots of Photoshop treatments and Adobe Illustrator line-art pieces drawn up either beforehand or on the fly.

[writer: Mark Kendrick | hardware: Apple G4 dual processor | software: Adobe Photoshop 7.0]

CREATE A PHOTOSHOP MONTAGE

Quick guide to Photoshop montage layering

Here's a breakdown of the various areas of our image and how using elements in a certain way can affect the overall feel of a composition

More than one face
We built up the image of the model's face, giving definition against the rest of the montage by duplicating the face layer and bringing it to the front of the other layers.

Light used to draw in the eye
Using stylised car lights at night, we overlaid multiple versions at the same angle as the model, with the Layer Styling set to 'Burn', so as to give a feeling of movement along the image, eventually leading the viewer's eye to her face.

Grids and text for a techy feel
The grid and text overlaid onto the montage with a subtle opacity gives a techy feel to the image and a sense of '*Blade Runner* meets Designer's Republic' information overtone without overpowering the image.

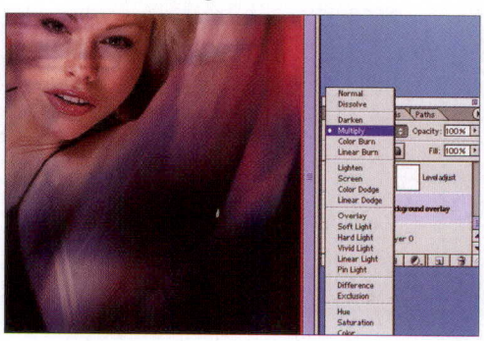
Blur out the image
For a sense of depth, the cyberpunk render area has been blurred out from the centre, giving more focus in the main area, and keeping the attention of the image firmly on the right of the picture.

Step-by-step: building your montage

Now the image is prepped, it's time to create the montage...

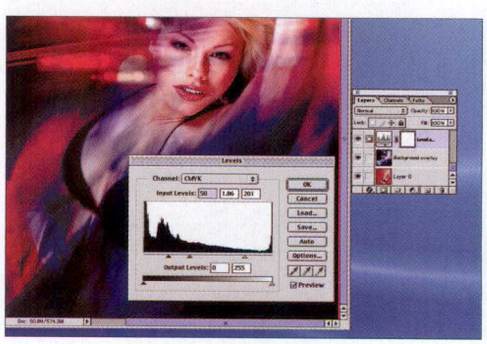
1: The work area

First the work area is set up. Our image is going into print, so we need it to be a decent size. Plus, we need to set the resolution of the document to '300' dpi to get the best quality. After all this, it's time to start adding in the main background layers, such as the image of our model.



2: Adding background layers

As we import each layer file, we can build up how each layer affects the layers underneath. Over the top of our model shot, we've added this strange purple image, and applied a 'Multiply' effect to the layer. This will be directly added to the model layer, and make the image look richer.



3: Adjustment layers

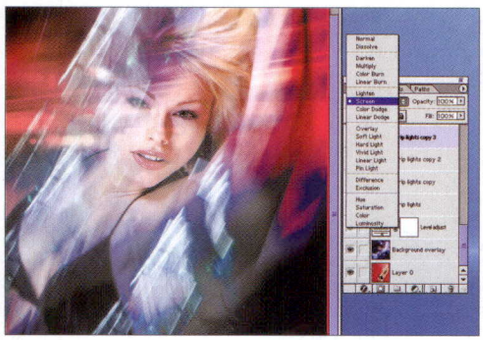
To bring out the image further, it's time for an 'Adjustment' layer. This is applied to lift the levels of the image and brighten up the whole canvas without altering the actual layers themselves. This non-destructive editing is an excellent way to test out various settings on your image.

A head start with Digital Vision

If a corner can be cut, or a quick way to achieve results can be found, then you'll not find a designer who wants to take the long way round. Especially if time is money. To this end, Stock Libraries have become big business. Initially a photographic resource, some companies such as Digital Vision have gone one better by releasing a series of discs with layered Photoshop montage imagery, ready for the designer to pick up and play about with. These are excellent value for money and give the designer a freedom never experienced before. FInd out more from **www.digitalvision.com**

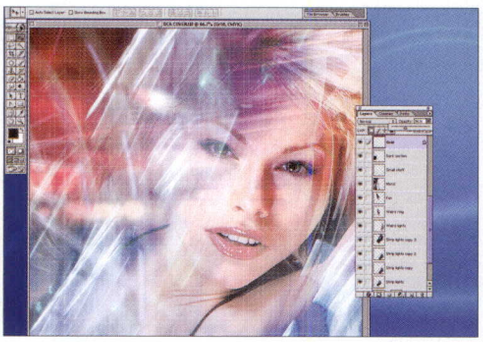
Can't find a perfect background? Try Digital Vision's range of images which, on CD, offer a quick-fire fix for designer creative block!

Photoshop plug-ins will always add functionality to your way of working, and one useful plug-in is the Grid Creator. Check out these sites for this free handy plug-ion and more: **www.users.cloud9.net/~gparet/photoshop/** or **http://thepluginsite.com/resources/freeps.htm**



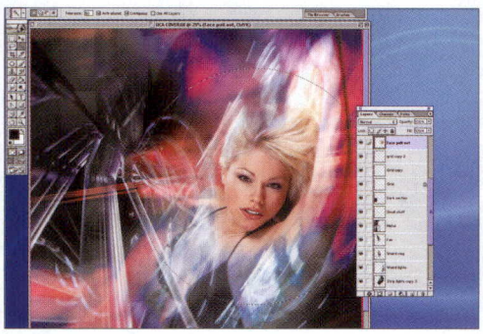
4: Adding highlight elements

Now we start to layer on our prepped items created earlier. We took a shot of some office strip lighting, and by assigning the layer as 'Screen' and duplicating it over and over, we can effectively paint light onto the image and create the ghosted effect you see here.



5: Adding a grid overlay

With the base layers of the image in place and interacting as we want, it's now time to add some 'techie' flourishes. There's nothing better than a 'grid' effect. Here we use a small Photoshop plug-in to generate the effect, although a well-drawn grid in Adobe Illustrator will do the trick.

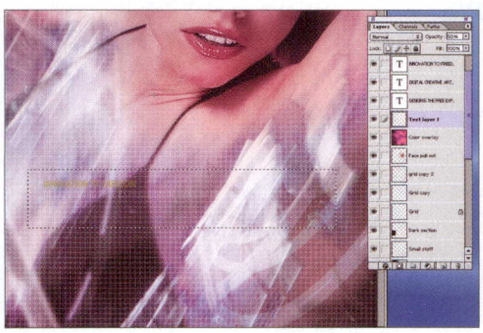


6: Bringing the face forward

As you can see from the previous step, the model's face is now looking a little lost in the mix. To enhance this area, we created a large feathered section from the base model image and copied it onto a layer that sits on top of all the other layers. This will give a clearer definition to our image.

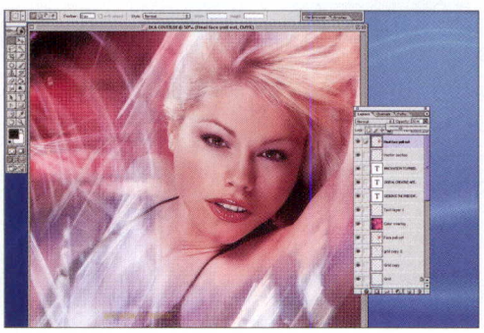
7: Adding colour overlays

To create mood and style, we've created a colour overlay. This is a Photoshop image layer, which has certain areas coloured up accordingly. This montage element, when set to 'Color', will give the image a 'feel'. The same trick is applied in movie post-production with 'digital grading'.



8: Apply text and vector elements

A further enhancement is the layering of other text and Illustrator-drawn vector art, which further reinforces the text feel to the image. These montage elements can give an image a lot of depth and identity if done well. The trick is not to go overboard.



9: Further face tweaks

Finally, we want to further distinguish the face from the colour overlay added earlier. We've duplicated the face area again, but this time set it with a medium level opacity which added more human skin tones and makes it the main focus of the image.

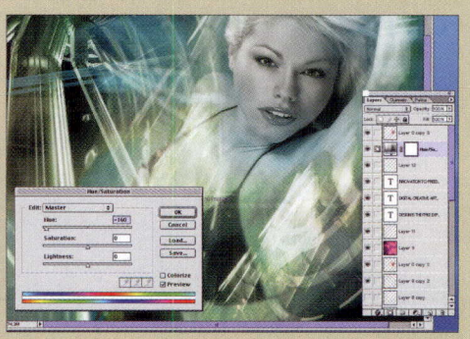
Montage pointers: tips and pitfalls

Digicams are your best friend

One of the most useful tools for designers today is the digital camera. For a couple of hundred pounds you get an 'image scanner' with infinite possibilities. Build up a bank of images, abstract and mainstream, and you'll never run out of useful montage elements to throw into an art piece.

Furry montages

The dreaded poor-man's idea of a montage. Many people think this is a montage. It is, but not always the best example. Steer clear of all your images at the same size and opacity. Oh, and feathering is not always your best friend. Be careful how you use the 'Lasso' tool for feathers!



Effects layers

These can bring a montage to life. With adjustment layers, opacity settings, burning and dodging, you can quickly create an art piece which shows inspiration and innovation, rather than merely taking the images you have and gluing them together.

[writer: **Jason Arber** | hardware: **PowerMac G4** | software: **Adobe Photoshop CS**]

CREATE DIGITAL GRAFFITI

Let your imagination run riot as you aim a few cans of digital spray paint at your own personal wall. And the authorities can't do a thing about it...

ON THE CD

Graffiti.psd
graffiti_sketch.tif

The origins of graffiti in the sense that we know it today are tied in with the rise of Hip Hop in New York City in the Seventies. Both the music and the graphic visual style have inspired designers and illustrators for the last three decades.

Hip Hop was born on the streets of Harlem and Brooklyn as a reaction against the elitist disco venues that sprang up in Manhattan. Using boom boxes, kids would congregate on street corners and rap about their inner city life. At the same time, a new style of urban art was developing – again directly linked to the streets – using spray paint or thick markers to create works directly on street walls or subways.

'Tagging', or writing your name, alias or gang name on subway cars came first, but was soon followed by more complex designs with more colours and fills. The first 'masterpiece' is usually credited to graphic innovator SUPER KOOL 223. Competition from different gangs and boroughs and the determined efforts of the Metropolitan Transit Authority's anti-graffiti teams drove innovation and experimentation.

The movement quickly spread, and although some may argue that things haven't progressed since the 'Wildstyle' days of the late Seventies when artists such as PHASE 2 introduced bubble letters, curls and arrows, graffiti is now a global phenomenon – and thanks to the Internet, even more accessible.

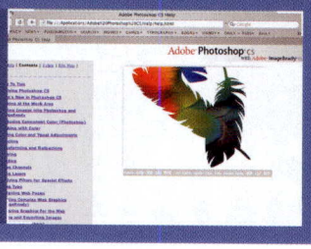
Tagging public places is a crime, so we're offering you a safer alternative: using Photoshop to let your imagination run riot with digital spray paint cans. We'll take you through creating your own wall, preparing brushes and the techniques needed to create your own personal graffiti. Here we've used Photoshop CS, but there's nothing to stop you from using an earlier version of Photoshop. ■

■ *Add a touch of urban charm to your screen*

■ *You can have a lot of fun – and stay out of trouble at the same time – by splashing away to your heart's content on a virtual wall*

Finding help in Photoshop CS

One of the criticisms levelled at the new Photoshop CS was the lack of a printed manual, being replaced by a slim volume of practical tutorials. Perhaps fine for the hobbyist Photoshopper, it was slightly lacking for the hardcore artist who likes to know all of Photoshop's capabilities in detail. But Photoshop's Help facility has come to the rescue with an HTML-based manual ('Help', 'Photoshop Help...'), which authoritatively explains all the facets of Photoshop. And for Mac users, Help opens in the default browser rather than forcing Explorer to open.

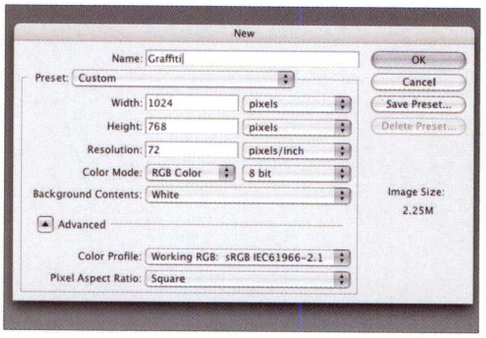


YOURGUIDE

JASON ARBER is Design Director at Green Cathedral Plc and co-creator of the hugely popular Web portal, Pixelsurgeon. Having completed a degree in Photography, Film and Video at the University of Westminster, he became an award-winning print designer before the lure of the Net became too great. See his work at **www.pixelsurgeon.com.**

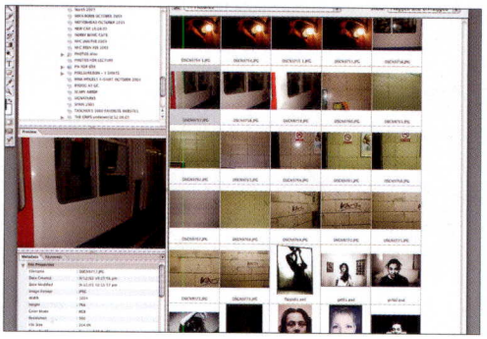
Step-by-step: your personal graffiti

Create a bit of a splash with the imaginative tools in Photoshop CS



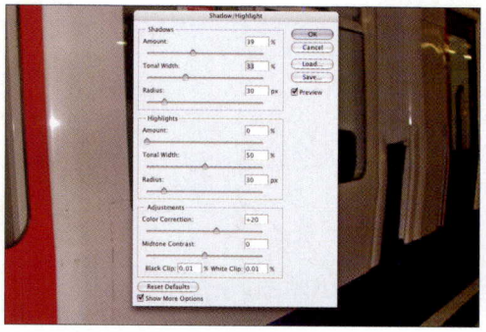
1: First things first

The aim is to create a graffiti-style wallpaper for your computer, so in Photoshop CS create a new file ('File', 'New...') and enter the pixel dimensions of your current screen resolution, such as 1024 x 768. The colour should be 'RGB' and the resolution '72' pixels per inch.



2: Using the File Browser

Use Photoshop CS's improved File Browser ('File', 'Browse...') to track down suitable images for your design. The great thing about digital cameras is that you can leap up from your seat, rush outside and have a bunch of photographs suitable for use as source material on your PC or Mac in next to no time .

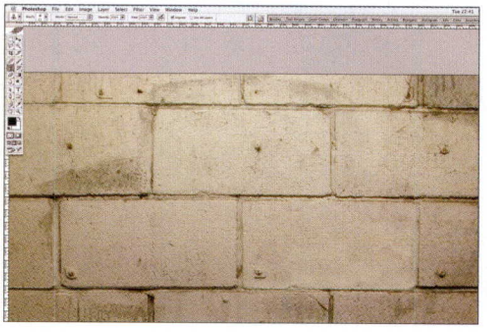


3: The Shadow/Highlight utility

If your image is a little too dark or too bleached out, you can use Photoshop's amazing new 'Shadow/Highlight' utility to bring out some detail by dragging a few sliders. Before this new feature, you might have spent hours tweaking the image to get the same result.

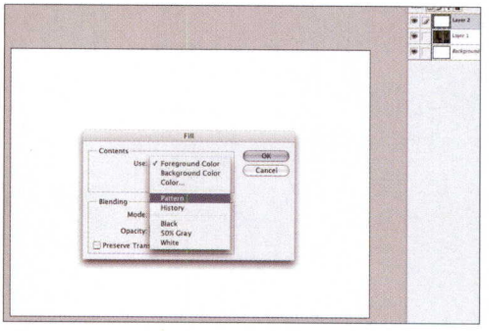
4: Up against the wall

The image of train on the layered file on the CD is great, but we'll return to that later. First, you need an image of a brick wall in order to create a convincing repeating pattern. Make sure you shoot it straight on, because the limited lenses on digital cameras can easily introduce distortions.



5: New kid on the breeze block

Show the Rulers ('View', 'Rulers') and drag guides from them to isolate the repeating pattern. Remember that you only need the mortar on opposite sides, because including mortar all around will double it up when the pattern repeats, making it too thick.



6: Seeing a pattern forming

With the 'Rectangular Marquee' tool from the 'Tools' palette, draw a rectangle around your defined area and create a pattern ('Edit', 'Define Pattern...'), give it a name and save. You're now ready to fill any selection with your new pattern ('Edit', 'Fill').

CREATE DIGITAL GRAFFITI

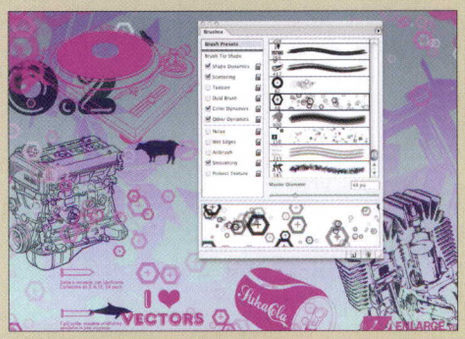
Discovering extra Photoshop brushes

Free brushes

Because of the ease that virtually any greyscale image up to 2,500 pixels by 2,500 pixels can be turned into a brush, there's a huge online resource in Photoshop brushes. By checking Pixelsurgeon or doing a Google search you can find hundreds of sites offering free brushes to download.

Download the brushes

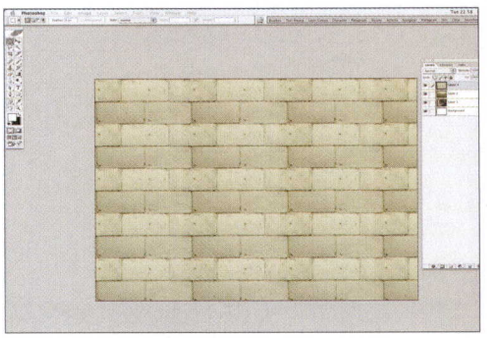
Download the brushes and unstuff or unzip them if necessary. They should have the suffix '.abr' and should be placed in the 'Brushes' folder located in the 'Presets' folder, which is inside the main 'Adobe Photoshop CS' folder. This will make them instantly available to Photoshop.



Load the brushes

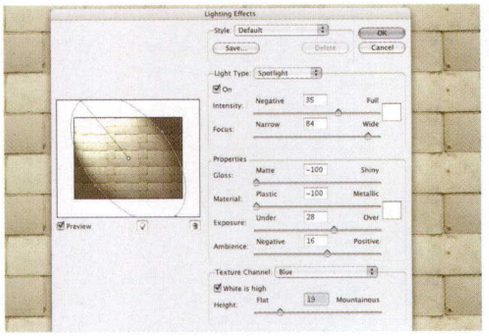
In the 'Brushes' palette in Photoshop, pick 'Load Brushes...' from the fly-out menu. Navigate to the newly installed '.abr' file in the 'Brushes' folder and hit 'Load'. The brushes will be appended to the current ones. Just select and start painting! (These brushes are from **www.magurno.com**.)

Continued...



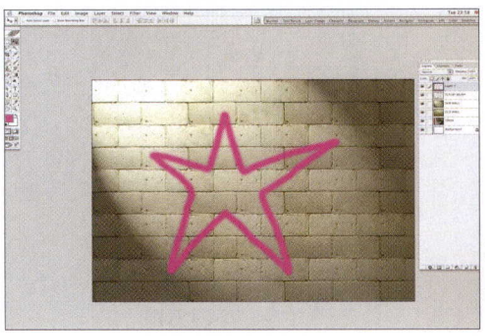
7: Can you tell what it is yet?

You may need several goes to get a seamless result, using the 'Cloning' tool to touch up edges that join. Eventually, however, you'll end up with a pattern that tiles fairly convincingly. The human eye is adept at spotting repeating patterns, but it's a good starting point for the next stage.



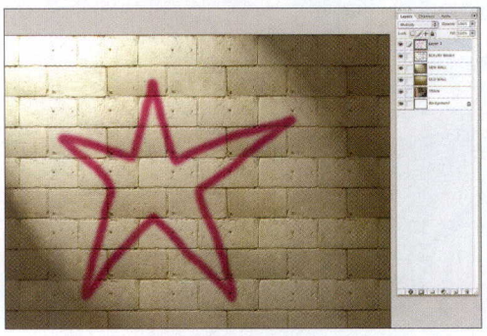
8: Making light work...

To give the impression that this is a wall in a seedy part of town, use the 'Lighting Effects' to throw a dramatic beam of light on the new wall ('Filter', 'Render', 'Lighting Effects...'). The trick is to use one of the RGB channels as a texture map to create the impression of a three-dimensional wall.



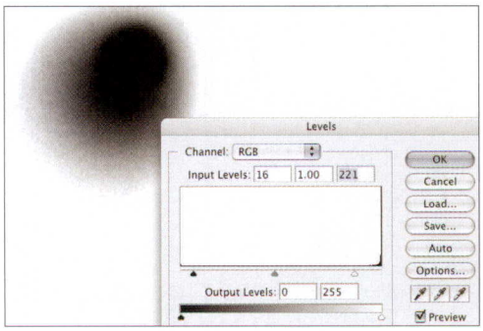
11: Default airbrush

Although there's nothing wrong with grabbing an airbrush from the 'Tools' palette and starting to spray, it doesn't look very convincing. There are quite a few things that can be done to create a more realistic impression of a spray can or giant marker pen.



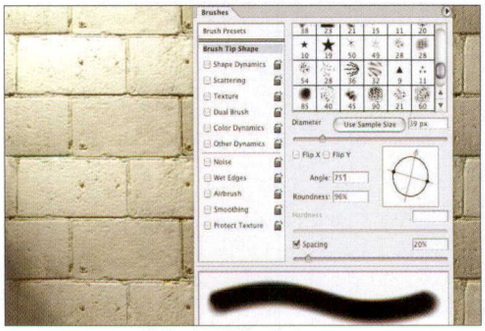
12: Layer transparency modes

How the layers interact with the wall layers is probably the most important thing, so changing the layer transparency mode to 'Multiply' helps sell the idea that the paint is actually sitting on the wall by allowing some of the wall to show through.



15: Increasing the contrast

Use the 'Levels' histogram to clean up the brush ('Image', 'Adjustments', 'Levels'). The histogram is a visual representation of the spread of pixels from dark to light. By dragging the black and white arrows (which represent pure black and pure white) closer together, you can increase the contrast.



16: On the right tip

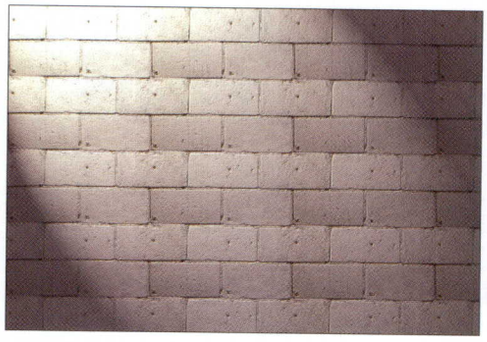
To define a brush, draw a square marquee around it and navigate to 'Define Brush Preset' on the 'Edit' menu . Give it a name and save it. You can fine-tune your new brush via the 'Brushes' palette. Clicking on 'Brush Tip Shape', for example, allows you to adjust the angle and roundness of the brush.

Adobe has been listening

Adobe Photoshop CS is one of the best Photoshop releases. Instead of a couple of headline-grabbing features, Photoshop CS is littered with smaller new features and sensible improvements designed to make life easier and show that Adobe has been listening to what users actually want. Better colour management, comprehensive 16-bit editing, the Filter Gallery, enhanced scripting and the new Shadow/Highlight function streamline workflows and turn jobs that used to take hours into a simple matter of a mouse click.

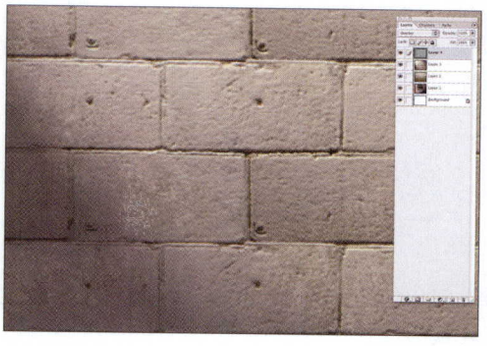
WEBRESOURCES

Keith Haring's Web site
www.haring.com
Inspirational graffiti art Web site
www.123klan.com
More cutting edge graffiti Web design
www.1134nyc.com
All about the classic hip hop movie
www.wildstylethemovie.com



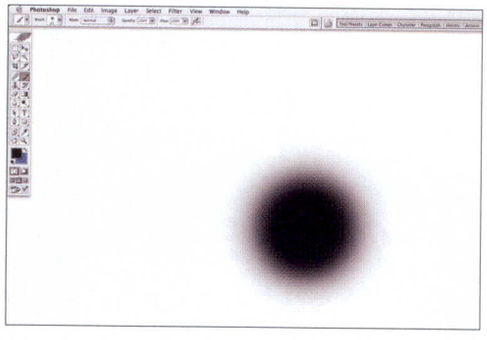
9: Top spot

The result can be stunning, as long as you don't go too mad with the height of the texture map. '50%' grey acts as a base level, with lighter pixels treated as being raised from the wall and darker pixels sunk in. This wall still looks a little too clean, so it's time to add some grime.



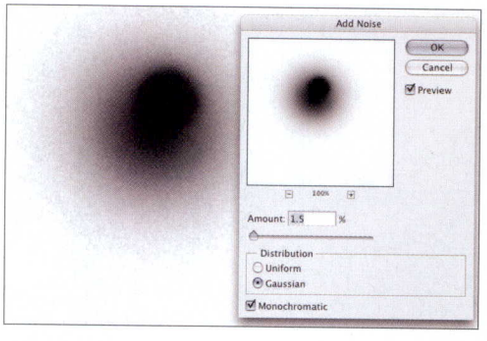
10: Adding some grime

Use a textured brush from the 'Brushes' palette (a subject we'll be returning to in the next section) and with a mid colour start scrubbing on some dirt. Make sure that the layer's transparency setting on the 'Layers' palette is set to 'Overlay'.



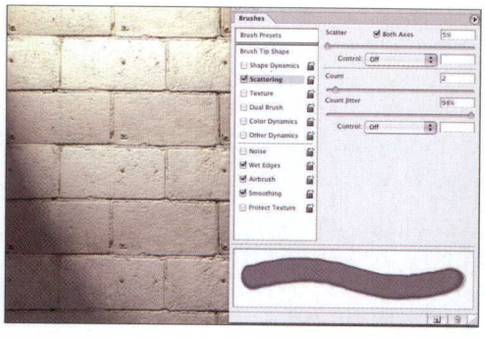
13: Creating your own brush

In order to get a better-looking aerosol effect, create a new document so that you can create your own custom brush. Making sure you use only black on a white background, use one of Photoshop CS's soft-edged brushes to start building up your own design.



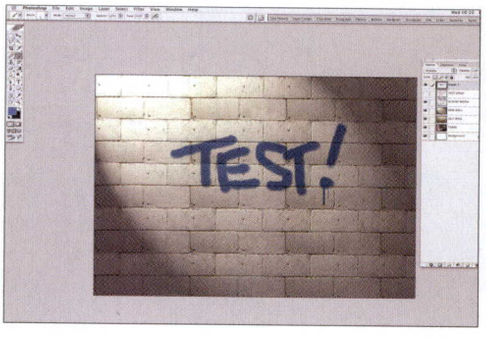
14: Feel the noise

It's possible to add subtle effects to the brush, such as noise ('Filter', 'Noise', 'Add Noise') which can help to give the impression of splattering paint. Make sure you use 'Gaussian' distribution for the noise, because that appears to be slightly coarser and more random than the 'Uniform' option.



17: Adding some randomness

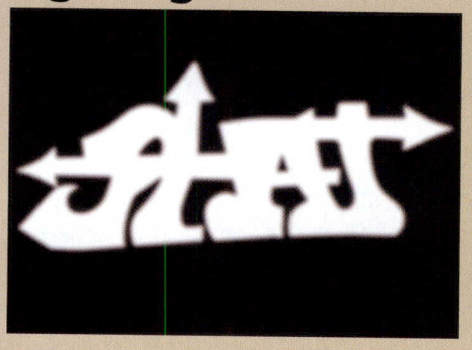
Other options such as 'Scattering' introduce an element of randomness to the brushstroke, so it seems less computer generated. 'Wet Edges' makes the brush slightly less opaque and creates the impression of thicker paint gathering at the edges of the brushstroke.



18: Testing times

Test your brush and keep making changes until you are completely happy with it. The combination of all the brush details and using a layer blending mode of 'Multiply' should start to create the look of a real can of aerosol paint on a brick wall.

Get creative with Lighting effects

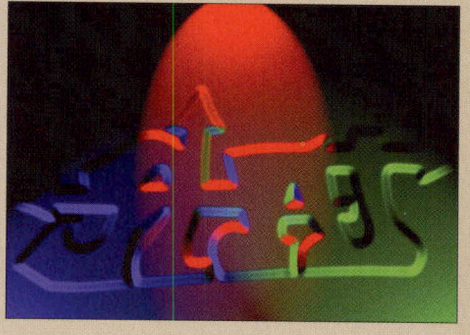


Create a slope

The 'Lighting Effects' in the 'Render' submenu of the 'Filter' menu give the designer freedom to create stunning artwork. Create a new document and fill it with a gradient. Paste a greyscale image into a new channel and blur the image slightly to create a slope, which will be used for a 3D effect.

Modify the properties

Open the 'Lighting Effects' dialog ('Filter', 'Render', 'Lighting Effects'). Choose a preset style such as 'RGB Lights' and click the individual lights to modify their properties. Colours can be assigned to each light, and act like a gel. Pick your new channel from the 'Texture Channel' drop-down, and hit 'OK'.

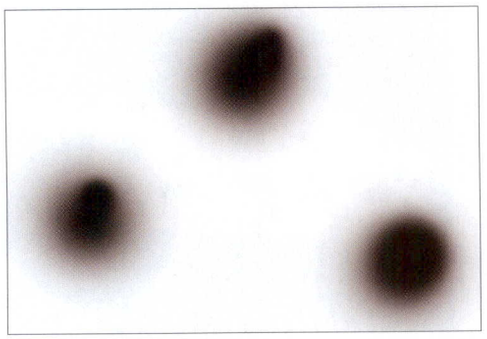


Result!

The resulting image is a convincing effect of lights shining onto a raised object – generated by the alpha channel greyscale shape. The lights interact correctly so that red, green and blue mix to produce white, just as they do in the real world. Explore more presets to see what can be done.

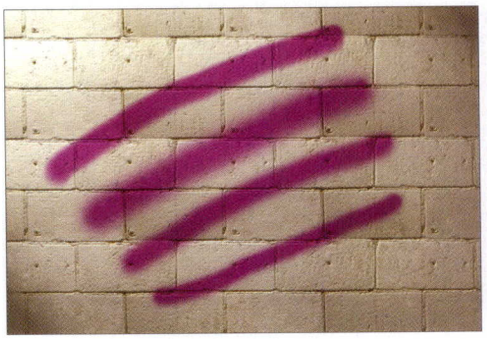
CREATE DIGITAL GRAFFITI

Continued...



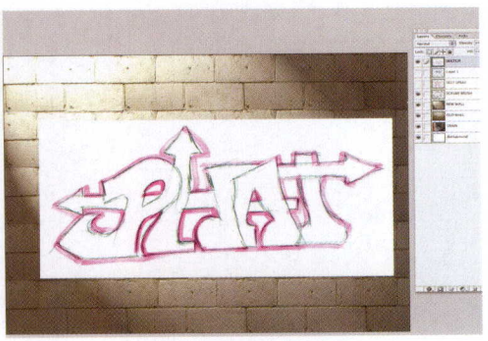
19: More of the same

Because different cans of paint all have different nozzle velocities, it's probably a good idea to create a whole batch of unique and individual brushes to give your artwork a touch of variety. Create them as you did before ('Edit', 'Define Brush Preset').



20: A brush with the law

As before, test your brushes on the wall. The different brushes will all have a unique feel; if they look too similar, go back and edit them. With the brushes done you're now just about ready to create a piece of digital graffiti that won't break any laws!

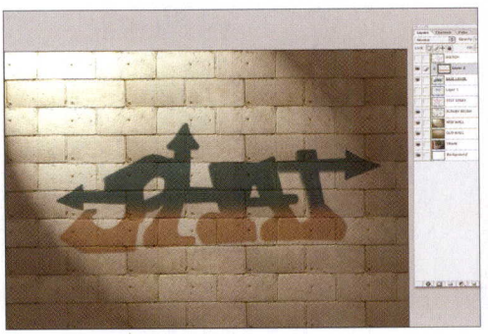


21: Getting phat

Scan in a rough sketch of some graffiti you've drawn. This particular image, which is on the cover CD ('graffiti_sketch.tif'), is a stereotypical 'Wildstyle' piece that has its roots in the Seventies. There's no need to colour up the drawing – it's the outline that's important.

22: Filling out the base shape

Make sure the sketch layer mode is set to 'Multiply', which makes the white of the scan transparent. On a layer below, choose a base colour, and using the mouse like a real can of paint, roughly fill in the body of the design with one of your new aerosol brushes.

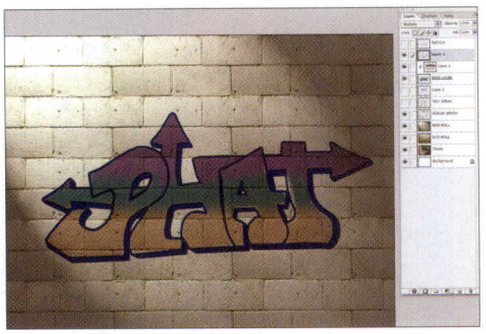


23: Adding some colour

Create a new layer above the base layer and create a clipping mask ('Layer', 'Create Clipping Mask'), where the base layer acts as a mask. Use a broad, soft brush to introduce a new colour at the bottom of the design. The mask will ensure that you don't stray over the base shape.

24: It's all in the detail

Roughly spray purple over the top of the design on the clipped layer. Then, with a much smaller aerosol brush, add a keyline in a dark blue and start filling in some of the detail. A graphics tablet is ideal for this kind of work, otherwise a steady hand is essential.

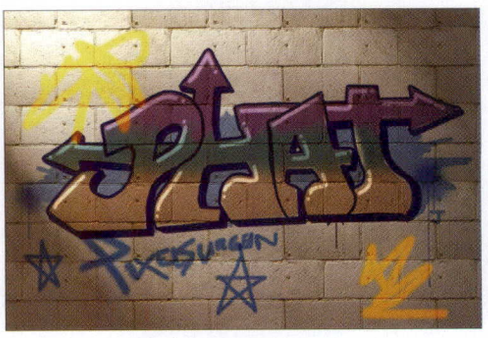


25: Almost there...

It's time to add an extruded drop shadow to the design with a small brush and the same dark blue we used for the keyline. The artwork is slowly starting to resemble a real piece of graffiti, and all that's left to do is add the finishing touches.

26: The final highlights

The finishing touches come in two parts – the first of which is to add highlights with a small brush in a pale colour such as white. This creates the traditional bevelled look of graffiti. Set the highlight layer mode to 'Overlay'. Although this isn't realistic, it creates a pleasing effect.



27: Looks pretty dope!

Graffiti seldom appears in isolation, so the finishing touch is to add more graffiti and the slightly more amateurish tags that seem to blight every creative piece of spray can art. It all helps to give the wallpaper a bit of urban charm. Now it's time to return to the train image from the beginning of the tutorial...

OUR INSPIRATION

Artistic pioneers

Two early innovative artists to find mainstream success were Keith Haring and Jean-Michel Basquiat. Haring created abstract images of figures such as atomic babies and his own stylised tag – an animal resembling a dog. He treated the New York subway system as a giant exhibition space, using empty black paper panels used to cover up old adverts as canvases. Haring was friends with Basquiat, who used the tag 'SAMO' but yearned to be taken seriously as a fine artist. Tragically, Basquiat died young from a drugs overdose, leaving a legacy of imaginative, child-like art behind. Both artists inspired a new generation of artists, such as Massive Attack's 3D.

SAY WHAT?

ALPHA CHANNEL
An alpha channel is an extra greyscale channel over and above the normal RGB or CMYK channels that is used to store additional graphic information about the image, such as masks or transparency.

LAYER MODES
Layer modes, which you'll find in the 'Layers' palette, determine how each channel interacts with the layers below it. The default mode is 'Normal', but there are over a dozen different effects.

Keeping it real with a little technique

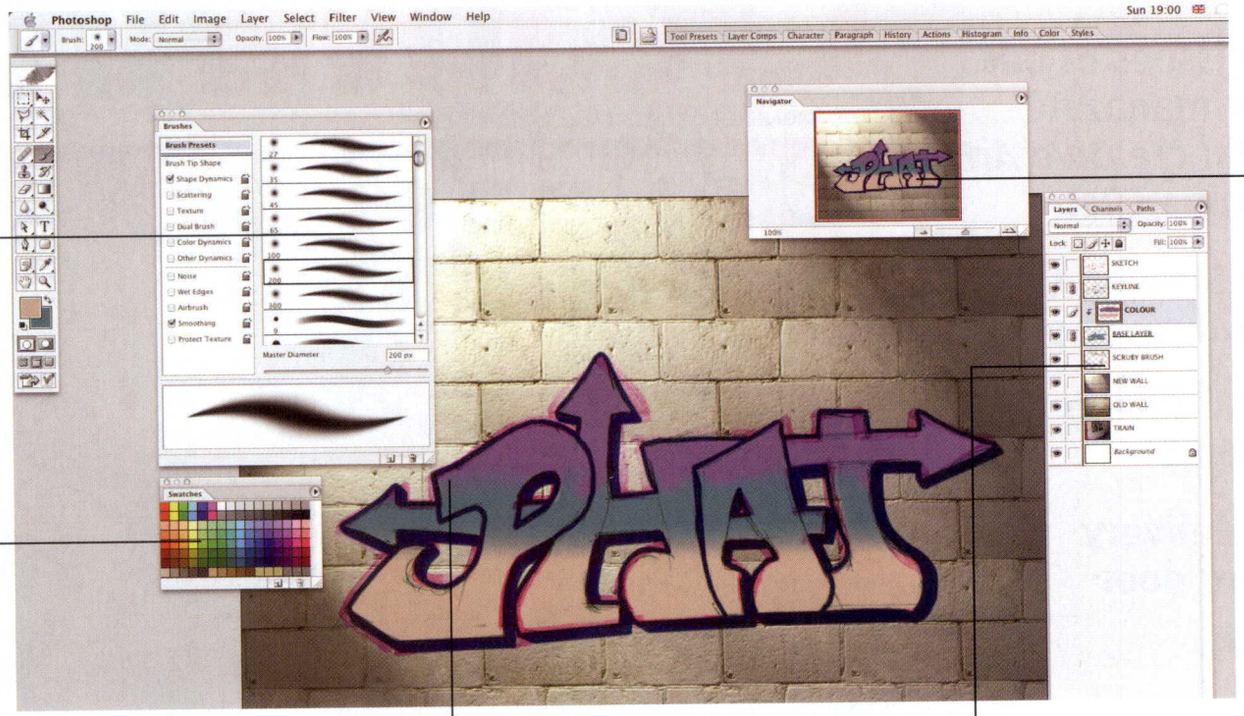
Naming layers and deft use of brushes are the keys to success with this Wildstyle-inspired piece of digital graffiti. And playing Jurassic 5 very loudly while you work helps, too...

A brush with choice

The 'Brushes' palette allows easy access to all brushes and lets you edit each brush's attributes. You can load new brushes from here to append or replace the current set

Flight of the Navigator

The Navigator is a really useful palette, particularly when zoomed right in to an image. The preview updates instantly when you make changes.



Swatch what you're doing

Keep frequently used colours in the 'Swatches' floating palette. Use the 'Eyedropper' to sample colours, then drag them to the palette or hit the 'New Document' icon

Digital colouring-in book

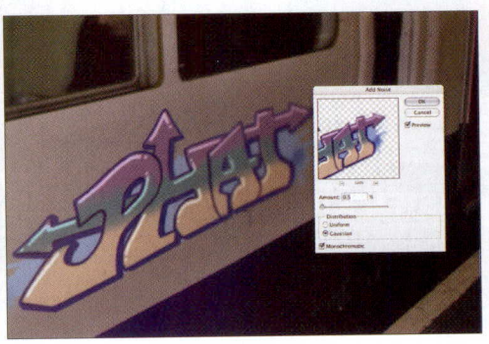
By setting the scanned sketch to a high layer and changing the layer blend mode to 'Multiply', it's possible to use the image like a colouring-in book

Structured layers

When creating complex artwork with lots of layers, keep track of how layers interact by giving them short, easily understood names

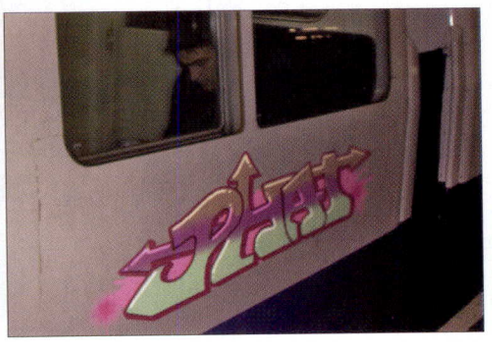
28: Pseudo 3D

Group all the elements that make up the graffiti into a single set (link the layers, then in the 'Layers' palette fly-out menu hit 'Create new set from linked'). With the set selected, reshape the graffiti ('Edit', 'Transform', 'Distort') by using the lines on the train to make the image follow the same perspective.



29: Keeping it real

Matte the distorted graffiti into the picture by converting the set into a rendered image ('Merge Layer Set' from the 'Layers' palette fly-out menu). Now selectively blur it to match the underlying image and apply a small amount of 'Noise' to mimic film grain or the inherent noise of digital cameras.



30: Spin the colour wheel

You can change colour schemes for the graffiti by changing the hue ('Image', 'Adjustments', 'Hue/Saturation'). In the 'Hue/Saturation' dialog, drag the 'Hue' slider backwards and forwards to cycle the image through the alternatives. Soften the harshness of some choices by reducing the 'Saturation' slightly.

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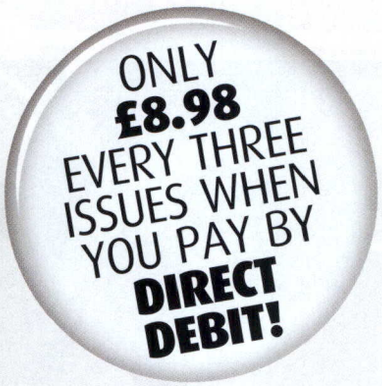

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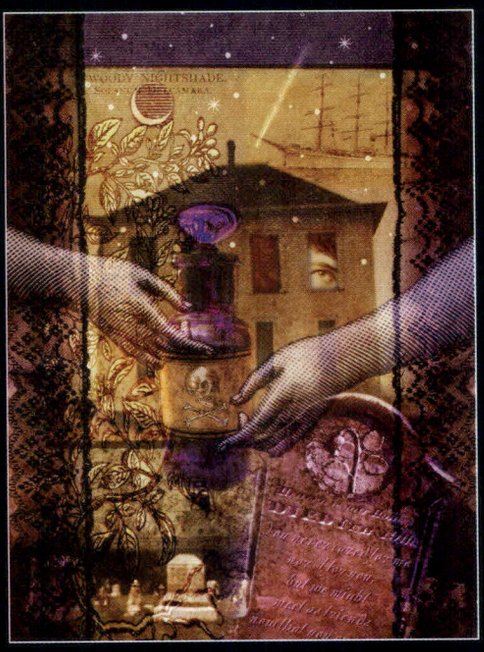
Quark Express Book Cover *(c) 2003 Diane Fenster*
This is a visual representation of the important new features in Quark 6.0 for the book Real World Quark Express 6.0 by David Blattner, published by Peachpit Press

MAKING MASTERPIECES

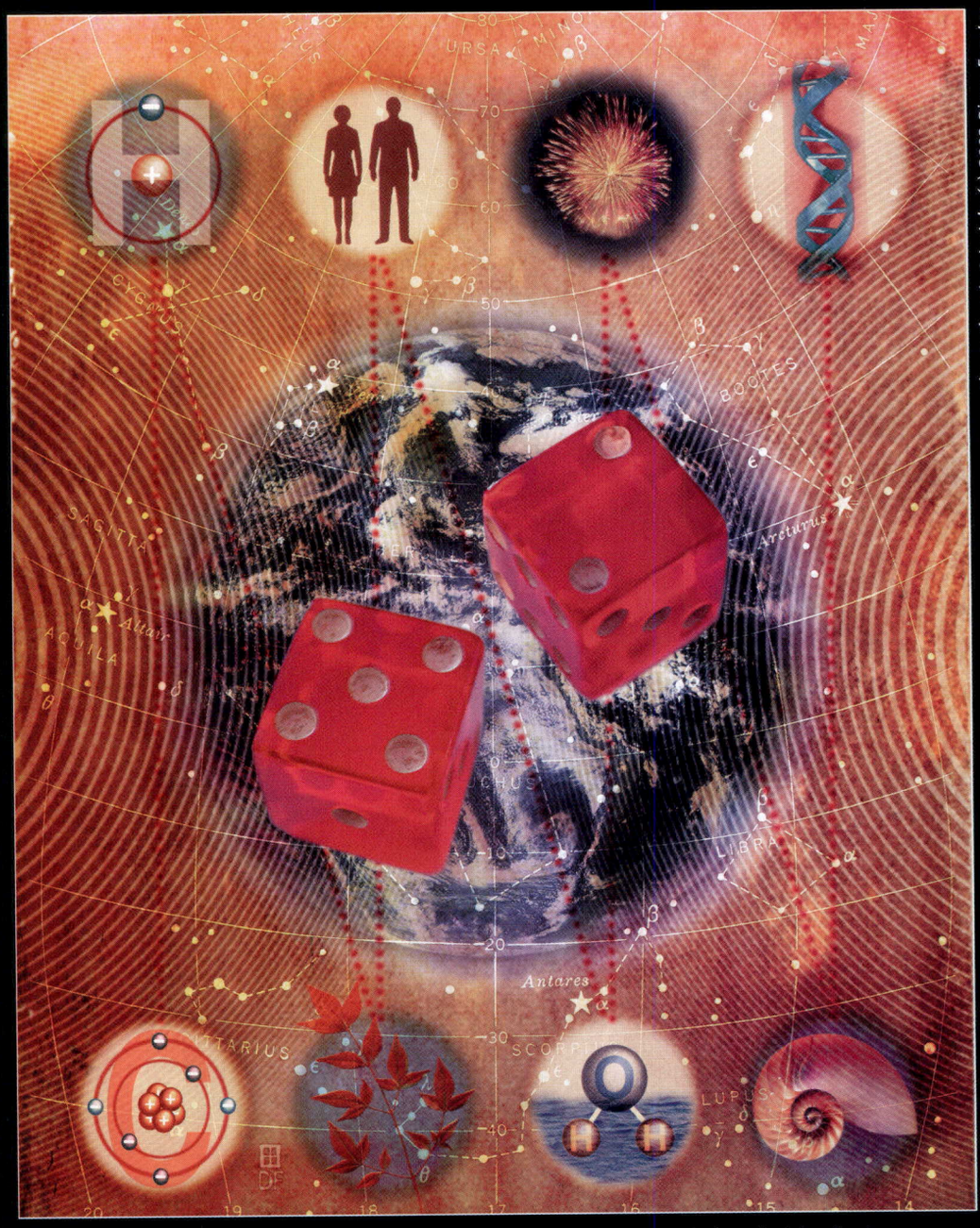
Respected photo illustrator Diane Fenster was the first artist to make the illustrious Photoshop Hall of Fame. Here she talks to Andy Stewart about art, ideals and visions in the shower...



Mourning Becomes Electra (c) 2002 Diane Fenster

Carmen (c) 2002 Diane Fenster

The top and bottom images are from a series created for the Seattle Opera's 2003/04 season advertising brochure



The Anthropic Principle (c) 2003 Diane Fenster

This image (above) for Sky and Telescope portrays the origins of life as either a lucky roll of the dice in a crapshoot or the result of divine intervention

AS: How would you describe your artistic style?

DF: I think the best way to describe it is 'mixed media'. Early on in my digital photomontage work, I realised that the wonderful thing about working on a computer was that you could take sources from just about anywhere and use them in your art. I think it was around 1995, when Photoshop 3.0 came out, that I also began working with Polaroid Image Transfers – so I think it's that combination of mixed media and working with Polaroid that really gave me my definitive style.

AS: How did you get started as an artist?

DF: My original background is as a research biologist. That's where my schooling is, but that wasn't where my heart was. My heart was telling me to be an artist, and that's really something I wanted to pursue as a child, but I wasn't encouraged by my family because they felt it wasn't practical. I began experimenting with literal cut-and-paste collage, where I would take pictures from magazines and use scissors to cut them up and make new images. I had always been inspired by the American collage artist Joseph Cornell, and I consider him – both in my early cut-and-paste collage and later in my digital work – to be a primary influence.

AS: Which aspects of digital imaging made you switch from traditional collage methods to using a computer to create your artwork?

DF: I had always loved the idea of hand colouring black and white photos, so I started gathering up old photos and scanning them in, making collages just like I used to with cut and paste, only this time on a computer. And that was it – I realised that this is why I was put on the planet, and this is what I need to do

Artist Profile

DIANE FENSTER

Having been active in the digital graphic design industry since 1989, Diane was present at the birth of Photoshop and was a first-hand witness to the way the program forever transformed computer art. Using Photoshop to produce her own brand of stunning photo illustration artwork, she became the first artist to be inducted into the world-renowned Photoshop Hall of Fame and has seen her work exhibited on an international scale. Besides photo illustration, Diane is currently working on a series of fine art pieces for an upcoming exhibition entitled 'Apparitions: Life as a Ghost'. To learn more about Diane and her work, head over to her Web site at **www.dianefenster.com**.

Kate (c) 2003 Diane Fenster

Christopher_Eyes (c) 2003 Diane Fenster

with my life. Passion is what has guided me to do whatever it is I feel strongly about, and I think that's really important for people who are just starting out in Photoshop or have even been using it for a while. You've got to be passionate about your work. You've got to just really love it, otherwise I don't think it's really going to go anywhere.

AS: You've been using Photoshop since its first release in 1990. Did you find that it revolutionised the way you created your art?

DF: Actually, I think it did. All the other programs, as good as they were, didn't have an intuitive feel about them. I always had to really struggle with them and try to understand them. But I don't know what it was with Photoshop – when it came out, there was just something about it that spoke to me and I said, yeah, you and I can be a team!

AS: One striking feature of your photo illustration work is your warm colour palette. What makes these colours so appealing to you?

DF: I prefer things to be really dreamy and emotional, rather than hard edged, and that was something that I think set me apart from a lot of people right from the early days. I think those colours give a much more organic quality. Everything I did before Photoshop 3.0 was much more saturated, with RGB-type colours like blues and magentas and reds and yellows – a much harsher palette. But the transition to Photoshop 3.0 with the new blend modes, and also working with the Polaroid Image Transfers, brought that more organic palette in and I've stuck with those colours ever since.

AS: The results you were achieving in Photoshop made you the first artist to be inducted into the Photoshop Hall of Fame. What does this accolade mean to you as an artist?

DF: The most important thing for me was that it was a nod of recognition from my peers. I think I've always had a certain insecurity from not having ever gone to an official art school or received any official training. I've always wondered, am I good enough? Are the art police going to knock on my door and take me away? So it meant a great deal to me, and was a validation for me to maintain my ideals. But frankly, my work has to be what attracts people, and not necessarily that I'm in the Hall of Fame. That's just the cherry on top of the ice cream sundae. But when you become someone who is known as a Photoshop expert, you have to keep up a bit of a face to the public, which is difficult because, if truth be told, I use very little of what there is in Photoshop. It's astonishing how much there is, but I only use the tip of the iceberg. I use layers – I have a zillion layers!

AS: Is that how you achieve that level of detail and complexity in your artwork?

DF: The layers and the blend modes are what's really doing it. I use everything in my work: digital cameras, traditional film cameras, anything I can get my hands on that I feel is going to work for the piece I want to present – and that range of sources is again where some of the complexity comes from.

Natasha (c) 2003 Diane Fenster

These three images on the left are from the photography series 'Apparitions: Life as a Ghost'. They allow the viewer to explore aspects not ordinarily seen when an image is in sharp detail. Their abstracted nature reveals hidden personas

The image below is another from the series of five illustrations that were created by Diane for the Seattle Opera's 2003/04 season

Parsifal(c) 2002 Diane Fenster

AS: Do you find that traditional film cameras give you a quality that can't be replicated with a digital camera?

DF: Yes, and that is an accident. There are accidents with film cameras that I don't think would ever occur on digital cameras. Digital cameras are too perfect. Part of the reason I turned to photography is because I wanted to find a source for things that weren't perfect, like photographing old brick walls. There are details in there that cannot be reproduced using a texture program. That's another element that you see in my work, and again sets it apart from others who just work with digital sources. It's that idea of natural texture, and accident.

AS: How do you come up with ideas for your assignments?

DF: When I do my illustration assignments, I like to think of myself as a detective. I have to find out what the elements are going to be to make up my illustration. I have something called the 'Shower Oracle', which is when I'm taking a shower in the morning, I try to think about the assignment – and because I'm relaxed it allows images to start coming up from my subconscious. That's the source of everything for me, my subconscious mind. It's almost like a dream process, only a waking dream. Sometimes during the day I'll get a flash, and I try to always keep this stuff bubbling away. There's a notion in alchemy of the 'alembic', which is the vessel in which the alchemical process takes place. I try to think of myself as that alembic, where something's always bubbling. And every once in a while a bubble comes to the surface and breaks, and I get an idea.

AS: Tell us more about your current fine art projects.

DF: My new fine art photography goes in totally the opposite direction to my illustration. I got to the point where everything I was doing was tremendously complex, and I finally said I have to go in the other direction; I've got to see what simplicity is like. So I got this idea to start working with faces, which was a direct outgrowth from a series I worked on in 2000 called 'Secrets of the Magdalene Laundries'. I became fascinated at that point with dealing with the human face as an iconographic object, and I wanted to strip away everything else. That's what I'm doing now. There's still digital manipulation in there, but it's mostly from a dodging and burning point of view.

AS: So are you now beginning to move away from photo illustration and towards fine art?

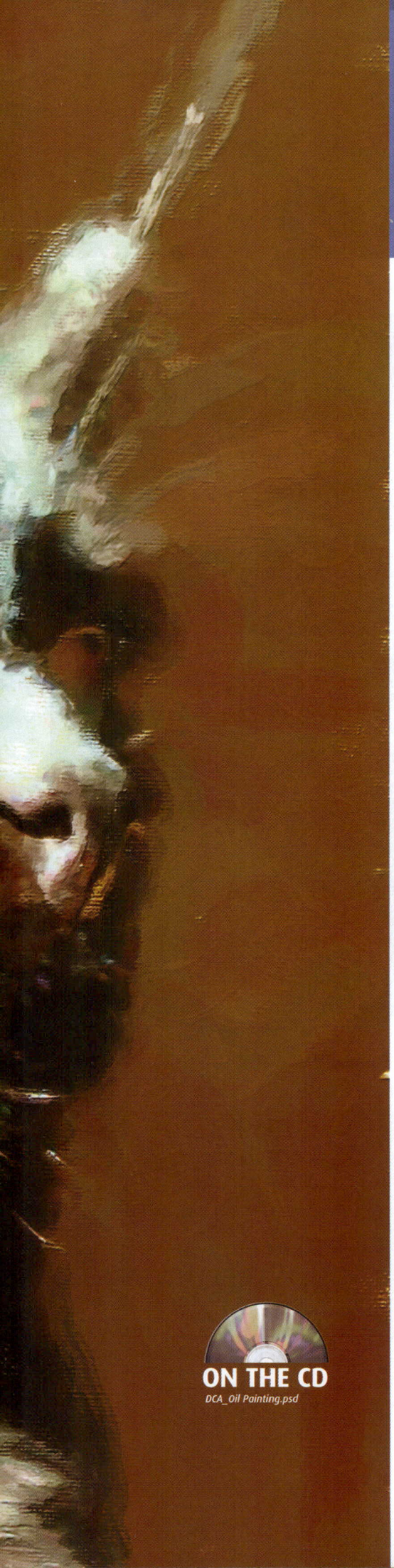
DF: Frankly I love them both, so I try to keep a balance between the two. And because it's the photo illustration that brings in the income, I really can't cut loose from that. But I wouldn't want to, because I love that feeling of being a detective and problem solving for clients. I would say that there's a symbiotic relationship between my illustration and my fine art – the two feed each other, back and forth. ■

[writer: Mark Kendrick | hardware: Apple G4 iMac 800Hz, WACOM Intuos2 graphics tablet | software: Adobe Photoshop 7.0]

OIL PAINTING IN PHOTOSHOP

Photoshop has long been a tool for photo manipulation and image creation, but one area seriously undervalued is its ability to create works of art from nothing but a photograph and a keen eye for painting. Allow us to reveal all...

Sooky the kitten was painted entirely in Photoshop. We used a photograph as a base reference image, and using nothing but a WACOM graphics tablet and Photoshop, re-created her in the style of the old masters

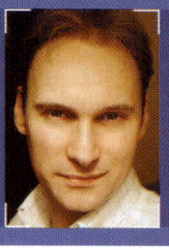


ON THE CD

DCA_Oil Painting.psd

YOURGUIDE

MARK KENDRICK is Art Director of Highbury - Paragon Ltd. With over 17 years of corporate and magazine design experience, his credentials stretch back to the mid Eighties, where his work included the legendary computing titles *Crash* and *Zzap! 64*, as well as concept design. He has launched over 100 magazines.

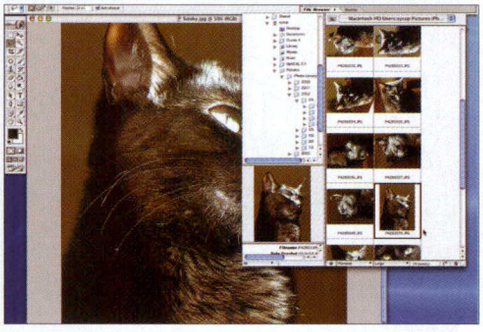


How many times have you seen artwork that has been created using Photoshop filters to emulate a particular artistic style, only to find that your own attempts at a watercolour ends up as more of a washout? Just as a MIDI sequence and synthesiser never quite manage to capture the essence of a live guitar performance, the same can been said of computers and art.

After seeing yet another botched job of a computer attempting to do art, we decided it was time to find a way of mimicking the old masters without relying on clever filters or third-party shortcuts. Instead, we coupled a knowledge of 2D and fine art with the best 21st Century tools for graphics – namely Adobe Photoshop 7.0 and a newly acquired WACOM Intuos2 graphics tablet. There were no fancy plug-ins used in the artwork of this feature, just these tools and a bit of artistic flair. And by following these simple instructions, you too can create artwork that won't look out of place in a gallery. So throw out that easel and those oil paints, boot up your computer and get Photoshop ready for a bit of action...

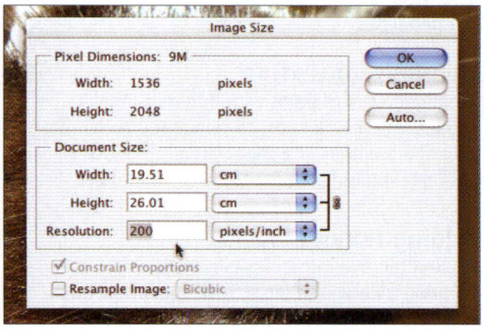
Step-by-step: choosing your image

Source material is all-important when painting in Photoshop. Choosing and prepping your image beforehand is essential for getting the right colour balance



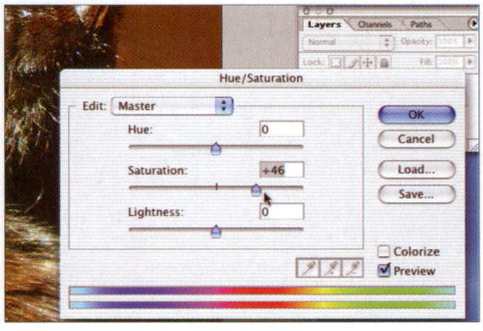
1: Finding the right shot

It's not that good picking any old picture to paint. For our painting of this cat (Sooky), we carefully photographed her so it would give an antiquated feel to the piece, and chose strong lighting which would give great highlights in oils later on. The image was saved in RGB mode.



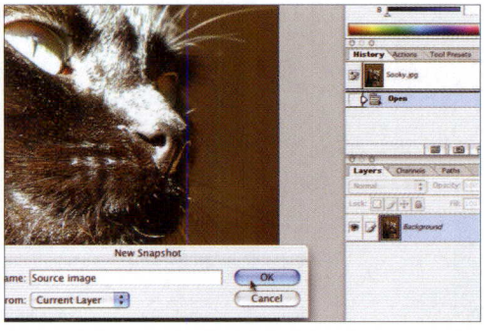
2: Cropping and sizing for print

You must ensure your source image is at the correct dimensions for your final image. It's no good working on a great piece of art, and finding the final image is only a three-inch square. We chose a '200dpi' image at around A4 size, so there would be plenty of scope for printing later on.



3: Enhancing colours

Next we enhanced the image. This basically involved exaggerating colours which would enrich the image when applying the virtual 'paint'. We increased the 'Saturation' of our image to enhance the highlights on Sooky's nose and eye area, bringing out the red in her coat.



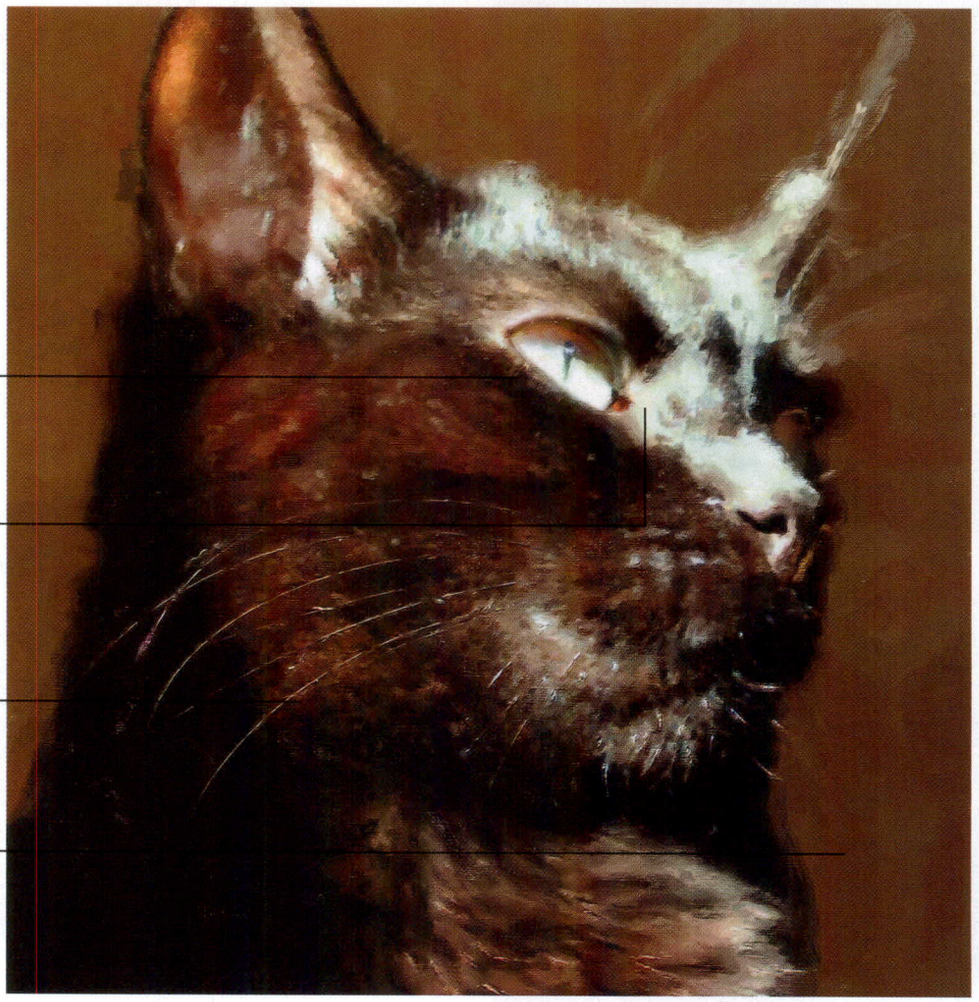
4: Making a snapshot

Our painting involved using the 'History brush' function, so we chose the 'History' palette. We then took a snapshot of the image by choosing 'New Snapshot' from the right-hand arrow menu. This generated a snapshot of the image, which will be referred to as you paint.

OIL PAINTING IN PHOTOSHOP

Quick guide to creating artwork with Photoshop brushes

Here's a breakdown of the various areas of our image and how using elements in a certain way can create a believable painted effect



Overpainting layers with small strokes
The eye area is a classic example of working up layers of paint. Here we layered the area using a base coat and then a small brush on another layer for tight definition

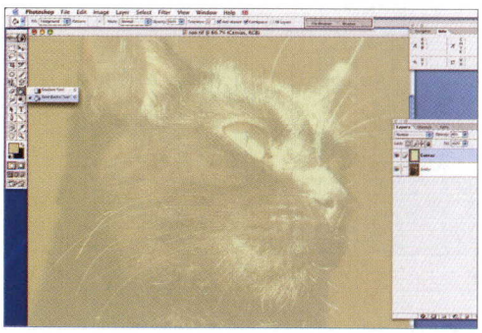
Colour exaggeration tricks
Look at the ear and eye areas. They use rich jade colours, deep red and strong blues. This isn't in the original photo, but enhanced to bring out the oil-painted look

Overlays for texture
Creating layers of paint with different 'Apply' modes, can give a boost to colour and enrich the feel of a painting. The cheek area is a classic example, utilising 'Linear Light' for the effect

Adding texture layers
Fooling the eye into believing this is a real painting means creating a 'real' canvas for the painting to sit on. Using the 'Textures' pattern fill provides the final touch which gives this image the effect of a real oil painting

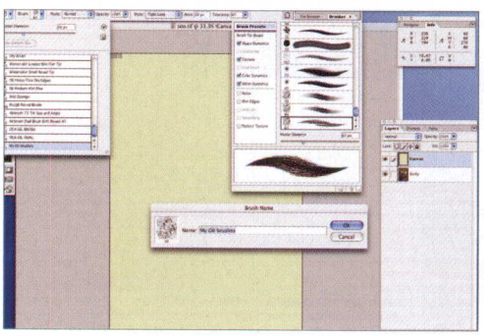
Step-by-step: begin your painting

Now the image is prepped, it's time to start painting. You can do this step-by-step without a tablet, but using one helps massively



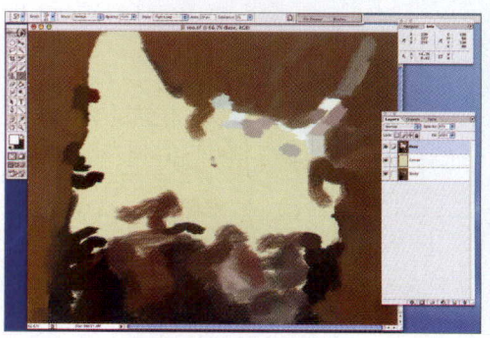
1: Base layer

Now the work area is set up and the image is ready, create a new layer. This will be the 'canvas' layer. Give it a name, and 'bucket fill' the layer with the canvas colour of your choice. We chose a soft cream colour. Set this layer to around '80%' opacity, so you can see through to the photograph beneath.



2: Choosing brushes

Click on the 'Art History' brush, and select a brush you desire. We created our own brush for this tutorial – see the Creative Primer for how to do this. Alternatively, you can download brushes from the Internet which are of excellent quality. Just download, and drop into your 'Brushes' folder in Photoshop.



3: Broad strokes

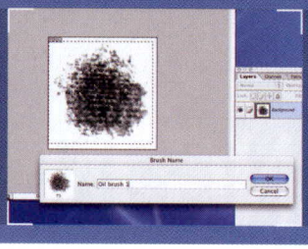
Next create a new layer, which is where you'll be painting. Using the 'Art history' brush, with a heavy 'Oil' brush, start to layer on the first ground base. As you can see, applying large broad strokes and going over the areas a few times, you can build up a convincing paint base quickly.

Creating and using brushes

A little daunted by creating your own brushes in Photoshop for painting? Don't be. It's pretty simple, and the effects can be excellent. Anything you wish can be a brush. Here's how to do it:

1: Create a document and draw any shape you'd like as a brush. It can be feathered, stippled or based on an existing brush. Just paint a small shape.

2: Drag over the drawn area with the 'Pointer' tool, and select 'Edit', 'Define Brush'. A dialog box will appear, enabling you to name your new brush. Simple, isn't it?



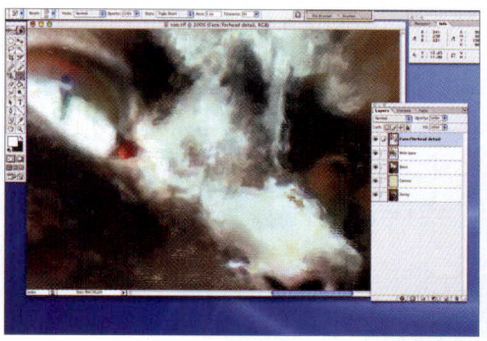
Creating brushes is child's play in Photoshop 7.0. And once created, they can be manipulated using the 'Brushes Presets' dialog pane

Additional brushes and textures are abundant online. If you don't have the time or inclination to create your own brushes, point your browser at these sites:

www.photoshoproadmap.com/photoshop-downloads.html
www.mysterre.com/brushes.html
www.photoshop-stuff.com
www.freephotoshop.com/

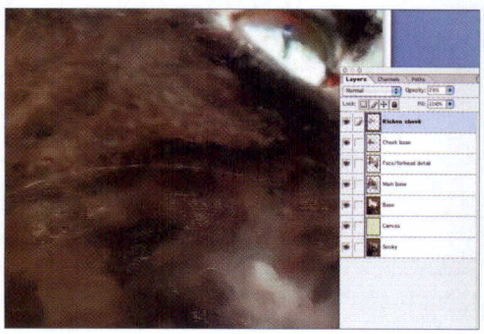
4: Building in the main areas

With the base layer set, create another layer. This is the first detail layer. Choose a medium oil brush this time, and start to define the main areas with a little more detail. Here, you can see we've sketched out the main outline, and started to fill in the eye and and main highlighted areas.



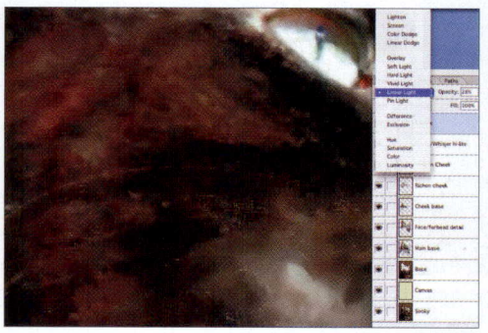
5: Getting into face highlights

Creating another layer, still using the same oil medium/small brush, give clearer definition to the ear and face highlights. By using small deliberate strokes, and repeatedly going over areas to push the paint around and mix colour, you can see a texture start to build up.



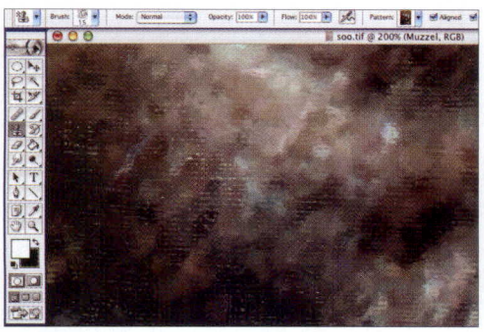
6: Defining fur

Time to create another layer. This building of layers is akin to building layer upon layer of paint. Only with Photoshop, you can adust each layer as you wish. Here we defined and started to add structure to the cheek area, using small brush movements in the direction of the fur growth.



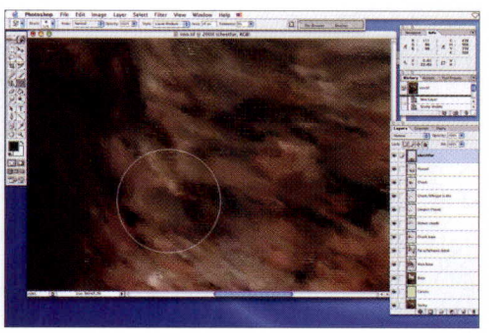
7: Broad brush strokes in fur

The cheek area has various layers, where we've built up paint layers on top of each other so as to create a rich feeling of fur. Also in this area is a broad brush stroke layer, which was set to 'Linear Light' at '28%', which enriches the red/brown hue found in the fur.



8: Defining the muzzle area

Next, the muzzle area. A tricky section, as there's a lot of fine detail here. With oils, it's more about light and shade rather than tight definition, so this area required a very small oil dry brush applied with small, meandering, circling motions. The highlighted areas were worked over again and again.



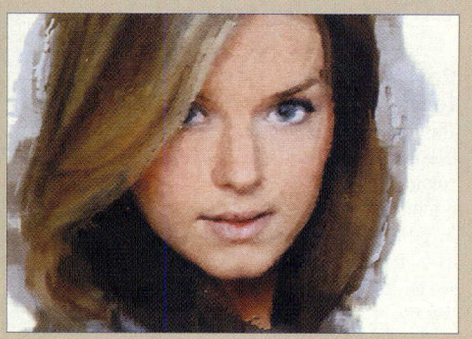
9: Chest fur area

This area was treated almost as a painting in itself. Starting with a broad, medium to large set oil brush, the base layer was applied to another new layer, and worked into until the colour definition was reached. Note how the brush strokes follow the fur movement to enhance the feeling of texture.

Painting pointers: different styles of work

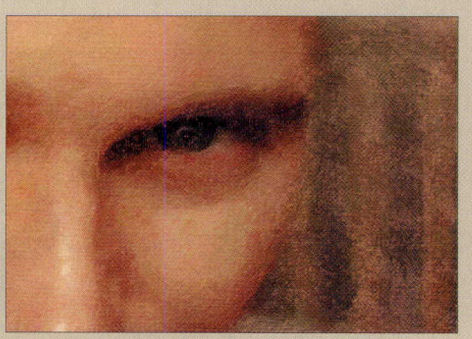
Convincing watercolours

This piece was created using the same basic techniques covered in our tutorial, except that the photograph was first treated with a third-party Photoshop plug-in called 'buZZ.Pro'. Layers of watercolour paint were then applied until a depth of finish was attained.



Gouache finishes

This image, created in under an hour, was produced without any real tablet work. Using broad strokes to build up the main areas, the following layers worked up bolder 'Wet Edges' to the brushes, and were applied with transparency to give an effect of watered-down Gouache.



Pastels/Fresco style

This self-portrait was achieved by laying down a base chalk layer and fleshing out each following layer with smaller brushes, giving better definition as the work progressed. Next an 'Impasto' effect was applied, embossing and layering over a canvas texture pattern fill.

OIL PAINTING IN PHOTOSHOP

Quick guide to the Photoshop work area used for painting

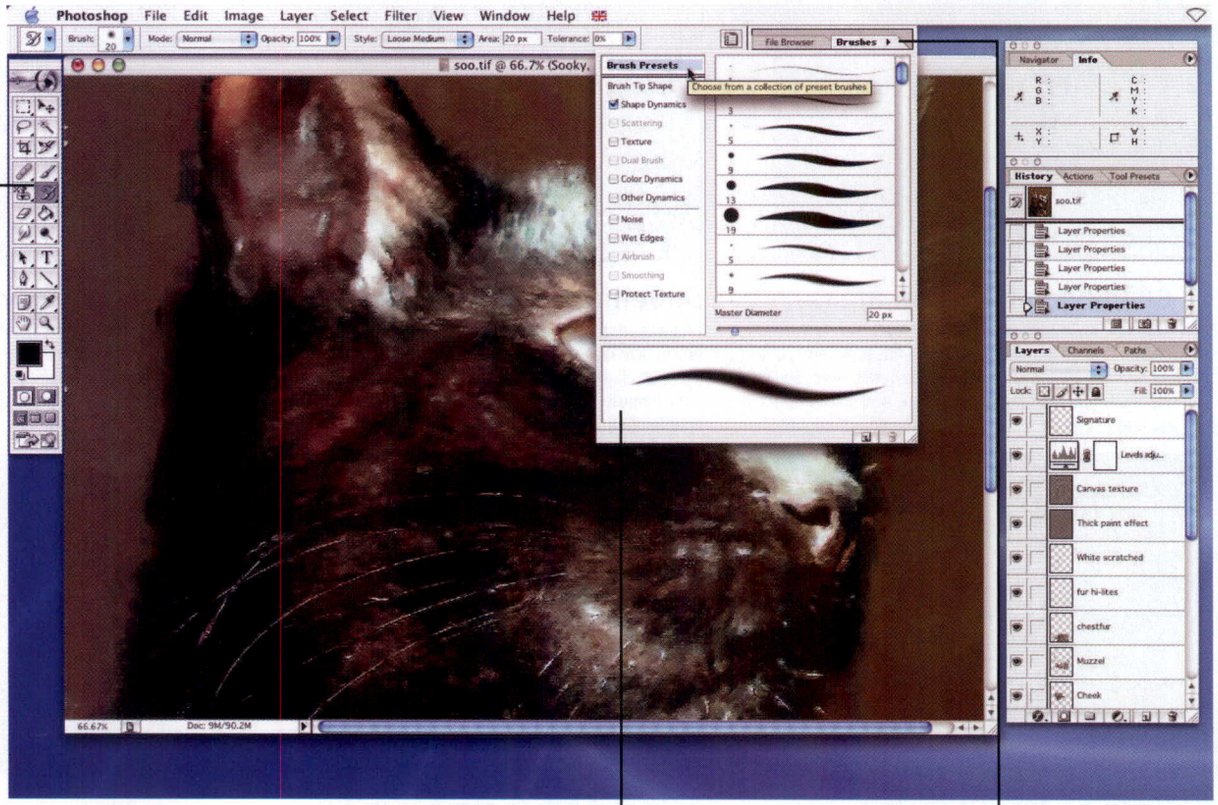
Never used some of the functions described in this tutorial? Don't worry. Here's a simple key to where everything is placed in the Photoshop work environment

History Brush tool

The most effective way of painting from a photograph. Once the snapshot has been created from the source, you can generate numerous brush strokes with one move of the pen which follow the pattern and colour of the source image

Pattern Stamp tool

This can be used as a brush which clones colour from your original source photo, by defining your photo as a 'stamp' from which to sample from. We use it for 'scratching' the oil layers down back to original image. With the 'Impressionist' option turned on, this can be very effective

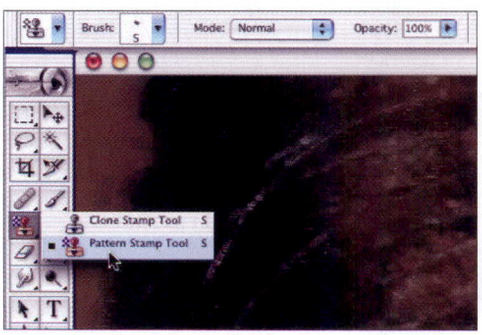


Brush presets palette

This is where you define and tweak your brushes to suit any style. It's a bit of a fiddle, but the results are worth the effort, especially if you have pressure sensitivity activated for pen and tablet work

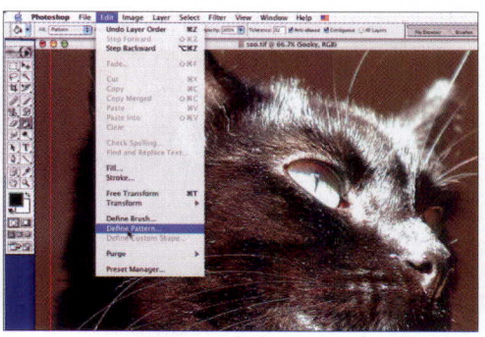
Loading additional brushes

Click on the top right arrow of the 'Brushes' pane, and an extended dialog box appears which enables you to load extra brushes. Great for pre-designed brushes via the Internet!



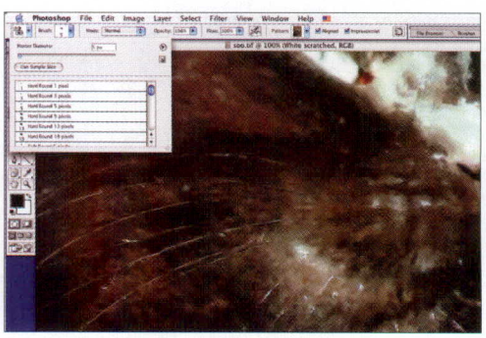
10: Scratching the paint: part one

The final work on the chest area aimed to bring out the highlighted fur. This was achieved by scratching into the paint or, as we are dealing with Photoshop, think of this as scratching a hole through the layers down to the photo. This was done using the 'Pattern Stamp' tool. Here's how...



11: Scratching the paint: part two

First you need to define the image as a source for painting. Hide all layers except the base layer, choose 'Edit', 'Define Pattern' and select this pattern as the clone pattern in the top area. Turn all layers back on and create a new 'Scratch' layer. Next, choose a 'Pattern Stamp' brush.



12: Scratching the paint: part three

Keep the brush small, and with firm strokes (using a graphics tablet) go over the highlighted whisker area. Do this again and again, until the painted area has the feeling of scratching down to the canvas board itself. Repeat this until all highlights are picked out of the painting.

Other painting techniques

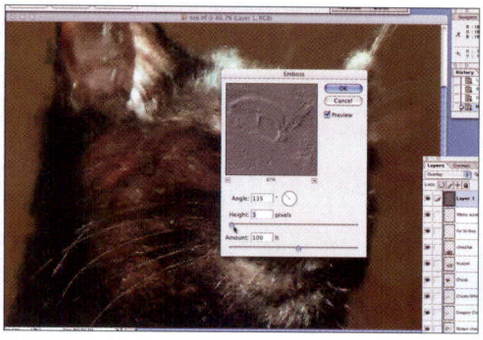
It's not only the 'History' brush which allows you the freedom of painting in Photoshop. Using the basic scratching out paint style, where you create a pattern of your whole piece, forms become the basis of the smudge paint technique. If you select the 'Smudge' tool and apply this with an oil or pastel brush, you can smear paint around layers, building up a very convincing post-impressionist style very quickly. This is a slow, laborious way of painting, but the results can be spectacular when done correctly. And again, this technique relies on the graphics tablet for full effect.

'Smudge' tool painting in action. Slow work, but it looks like Van Gogh

WEBRESOURCES

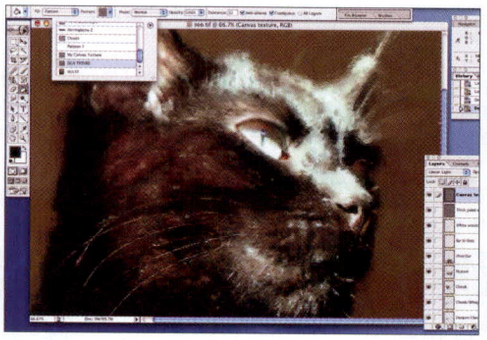
Here's a few places where Photoshop artists display their paintings. Check them out for inspiration:

www.guerillapixel.com
www.gorblimey.com
www.hawaii.edu/powerkills
www.3dkingdoms.com
www.saunderscreative.com
www.simons-rock.edu/~crlindst



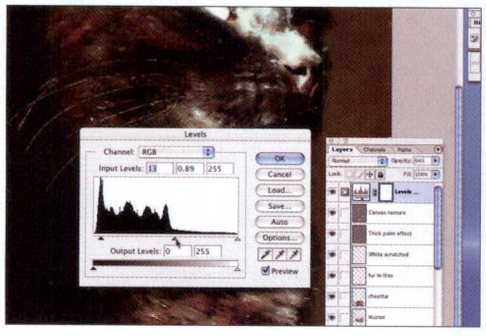
13: Adding real paint 'depth'

Now to enhance the real painted effect. Create a new layer, and, holding the 'Alt' key, choose 'Merge Visible'. Desaturate this composited layer and set it to 'Overlay' mode. Now take this layer and apply the 'Emboss' filter. See how it makes the paint look real by raising the look of the brush strokes? Neat.



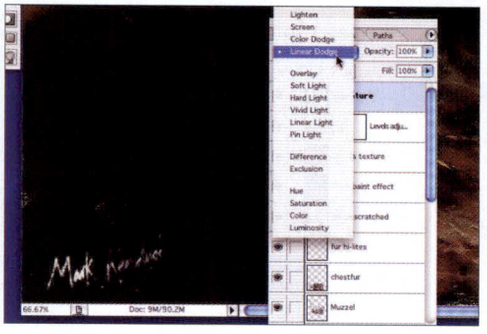
14: Applying textures to canvas

Enhancing the paint feel further, create a new layer. Set this layer as 'Linear Light' and give it a low opacity. Ours is set to only '3%'. Fill this layer with a 'Pattern' fill. A canvas texture or thick brush strokes texture applied to the layer will enhance the image and create a believable painted effect.



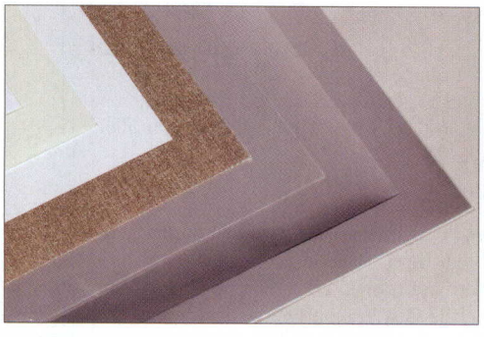
15 Level adjust for ageing

The image so far feels a little modern for an old master. It needs to feel as though it has been hanging in a gallery for hundreds of years. To achieve this dirty look, create a new adjustment layer applied as 'Levels'. Then pull up the lower input level, giving the image a richer, mustier feel.



16: Sign your artwork

Be proud of your work! We created another layer, and with the WACOM tablet, signed the artwork on a new layer set to 'Linear Dodge'. Then, as a final touch, we applied a small 'Emboss' effect so the name looks to fall into the painting on the thinner brush strokes to add to the realism. Finished!



17: Choosing the right paper

Now it's time to consider how you want to display your work of art. Remember back at the start, when we set the resolution for the image? Here's why. We wanted to print this image onto inkjet, with a textured, canvas-type paper. Have a browse around and find a paper that's suited to your style of painting.

18: Printing your masterpiece

We made some slight levels adjustments to the image to allow for inkjet output, loaded the texture paper and printed the artwork direct from Photoshop. For illustrative purposes in this feature, the final image was flattened and converted to CMYK for four-colour printing.

Why WACOM? Using a graphics tablet

Mouse vs pen

This picture shows the difference, albeit on a simple scale, between using a mouse or graphics pen. As you can see, the fade effects on the brush strokes on the right are far more realistic and afford the artist greater creative expression.

Choosing the right tablet

What size tablet, and what make? We've found an A4 tablet to be a near perfect size for most artworking. However, if you are primarily a photographer looking for mere enhancement, then an A5 or even A6 pad will suffice. But for serious work, accept nothing smaller than A4.

Additional pens

Not only do graphics tablets have a wireless mouse and pen, but a whole array of additional pens which allow you get the most from your imaging. It's worth buying a tablet for the airbrush tool alone. This baby is weighted and balanced just like a real airbrush.

[writer: Jason Arber | hardware: Apple PowerMac G4 | software: Photoshop Elements 2.0]

CREATING DIGITAL WATERCOLOURS

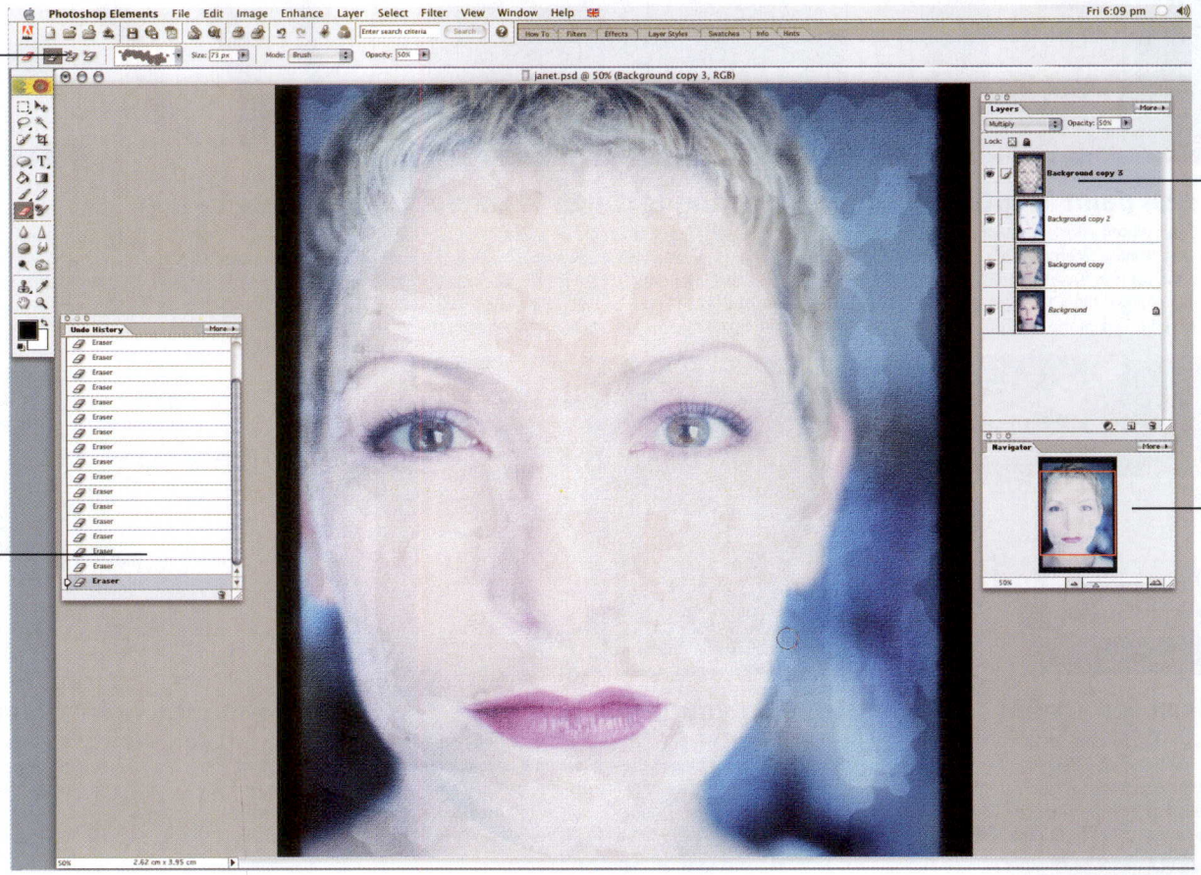
Using filters, brush effects and a little bit of artistic flair you can create a convincing watercolour look with Photoshop Elements that beats built-in canned effects

Make your choice

Using this pop-out palette, different brushes can be accessed from 'Water Media' to 'Special Effect' brushes. And if you have a graphics tablet, the brushes support pressure sensitivity for even more realistic results

Separate your layers

The 'Layers' palette lets you stack different images as if they were on pieces of acetate. It can change the layer order and adjust the 'Transparency' mode and opacity to create stunning effects



Relive history

Palettes can be dragged in and out of the palette well across the top of the application. The 'History' palette is invaluable for giving you the freedom to experiment, safe in the knowledge that you can retrace steps at any point

Up close and personal

The 'Navigator' is a useful palette, especially when zoomed in close to your image. You can grab the square to move around and move the triangle on the slider to change the magnification.

ON THE CD

janet_watercolour.tif
splash.tif

Photoshop has been refined for more than a decade to the point where it has become the standard tool for image editing professionals. But for most users, the depth of the application is overkill. Enter Photoshop Elements, which is aimed at the home user and, thankfully, has a nice non-professional price tag as well.

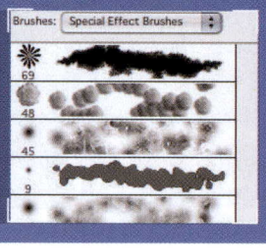
Photoshop Elements has a wealth of effects, filters and brushes which each come with mini previews, taking much of the guesswork out of experimenting with the application and making it easier for image-editing newcomers to achieve respectable results with even the bare minimum of technical knowledge about the application.

Although there are canned effects included with Elements which simulate the look of oil or watercolour painting, they are not particularly realistic. They can, however, form the basis of a more interesting approach, which is the aim of this tutorial. Read on as we show you how to take any digital photograph and transform it into a stunning digital painting. Don't worry if you're using Photoshop, because you should still be able to follow this tutorial with out any major problems. ■

CREATIVEPRIMER

Select other brushes

Brushes are grouped into useful sections, which can be accessed from this drop-down menu. There's a huge array of brushes, which range from brushes mimicking their real-world equivalents and calligraphy pens to outlandish Special Effect brushes.

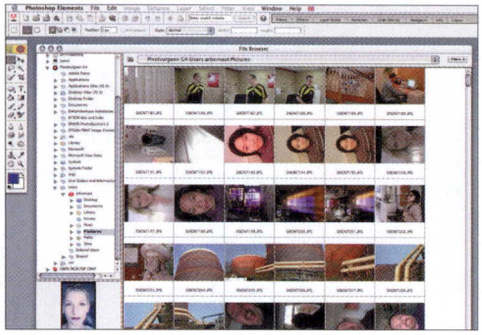


YOURGUIDE

JASON ARBER is Design Director at Green Cathedral Plc and co-creator of the popular Web portal, Pixelsurgeon. Having completed a degree in Photography, Film and Video at the University of Westminster, he became an award-winning print designer before the lure of the Net became too great. See Jason's work at **www.pixelsurgeon.com.**

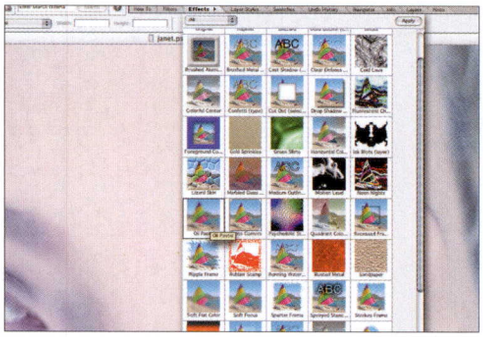
Step-by-step: getting arty with Elements

Find out how easy it is to produce a masterpiece with a little help from Photoshop



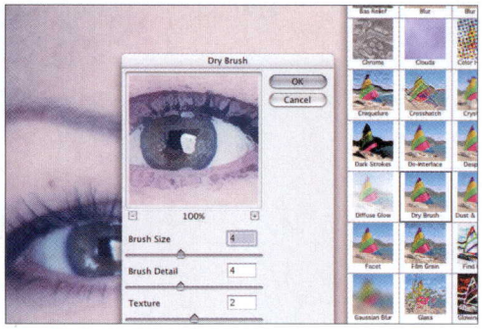
1: Attending the preview

Open Photoshop Elements and select 'Browse for File' from the introductory screen (or 'File', 'Browse...' from the menu bar. This brings up a helpful matrix of image previews contained in the folders you navigate to. Double-click the preview to open it.



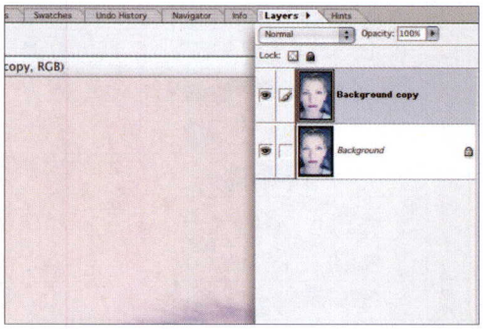
2: Used to good effect

Elements comes with a number of built-in effects which can be accessed from the 'Effects' tab in the palette well across the top of the screen (or 'Window', 'Effects'). Usefully there are tiny previews of each effect, but the results are not quite what we're after.



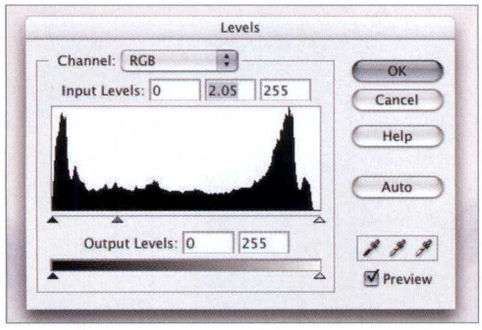
3: Flexible friend

Whereas Effects produce canned results, Filters, which can also be accessed from the palette well, offer a greater degree of flexibility. There are some filters, such as 'Dry Brush' which can be used to produce a moderately convincing oil or watercolour painting effect.



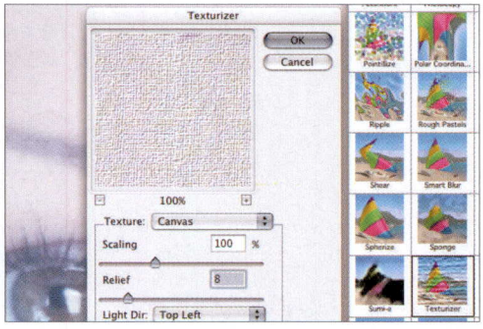
4: More realistic effects

To achieve a more realistic effect, we'll be using a combination of techniques. With your base image opened and the 'Layers' palette opened via the palette well, drag your Background layer on to the document icon at the bottom of the palette to duplicate it.



5: Keep it light

Create a paler version of the underlying image by bringing up the 'Levels' dialog ('Enhance', 'Adjust Brightness/Contrast', 'Levels'), which shows you the brightness values. Drag the grey triangle to the left to lighten the image and click 'OK'.



6: Introduce a texture

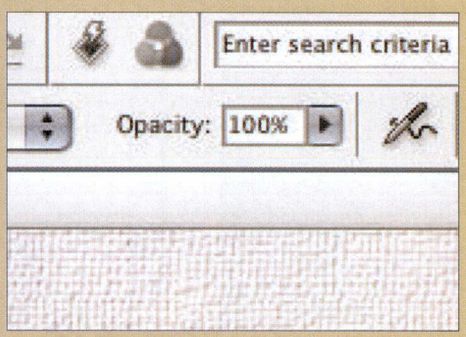
Using the 'Texturizer' filter, give the new paler image a canvas texture. Make sure that the canvas texture isn't too overpowering by taking the 'Relief' value down to around '8' and click 'OK'.

Working with brushes

PHOTOSHOP ELEMENTS' BRUSHES ARE INTEGRAL TO REPRODUCING REALISTIC PAINT EFFECTS

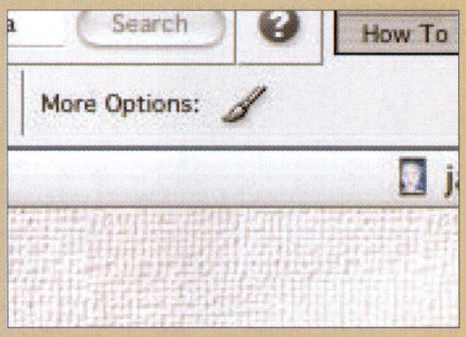
Impressionist leanings

The 'Impressionist' brush is a one-trick pony, and by brushing over digital photographs apparently gives the appearance of having been created by Monet or Degas – but we think it's unlikely to fool Sotheby's...



Applying subtle effects

By selecting the 'Airbrush' option, paint strokes are soft-edged, just as though you were using a can of spray paint. This is particularly useful when you need subtle graduated tones or want to apply brush effects discreetly.

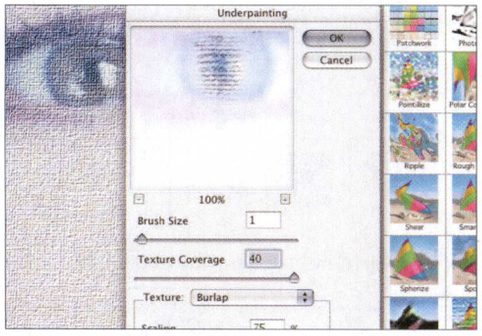


Getting greater control

In addition to adjusting brush size, mode and opacity, the 'More Options' pop-out palette gives you control over every aspect of a brush, such as 'Colour Jitter', 'Scatter', the roundness of the brush and its angle.

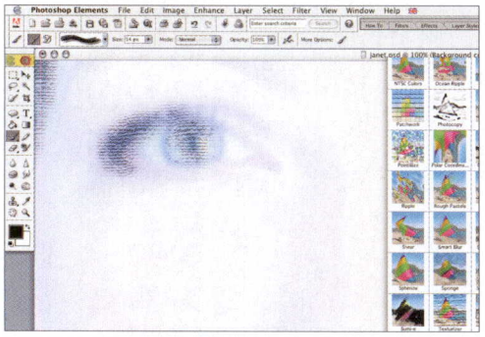
CREATING DIGITAL WATERCOLOURS

Continued...



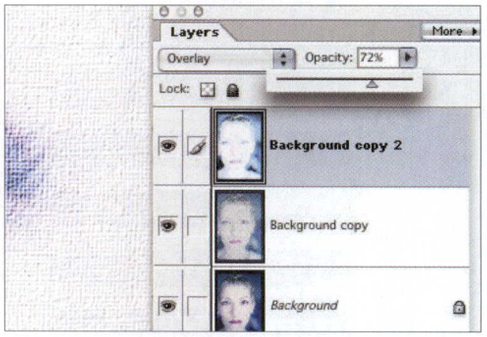
7: Seeing double

Make a duplicate of the new textured layer by dragging it on to the document icon in the 'Layers' palette and apply the 'Underpainting' filter to it. Use the 'Burlap' texture and reduce the scaling to around '75%'.



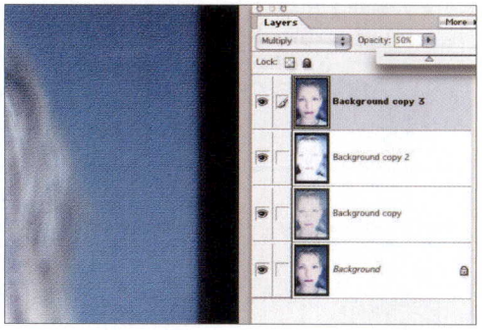
8: Come together

The result is a washed out effect that blurs the detail and introduces the Burlap texture to the darker areas of the image. We're now going to blend the two textured layers together to create a convincing canvas for the brush effects.



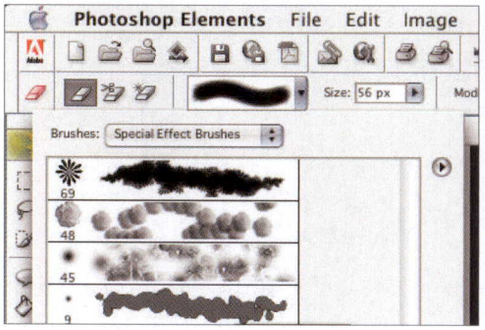
9: Alter the transparency

Matte the top layer with the underlying one by changing the transparency method to 'Overlay' from the dropdown menu at the top of the 'Layers' palette and adjusting the 'Opacity' to between 50 and 70 percent.



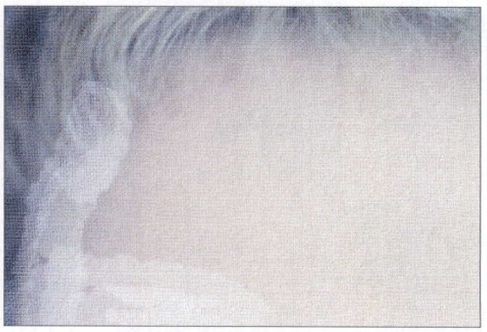
10: More background

Duplicate the background layer again and drag it to the top of the layer stack. Set the transparency to 'Multiply' from the menu and the opacity to '50%'.



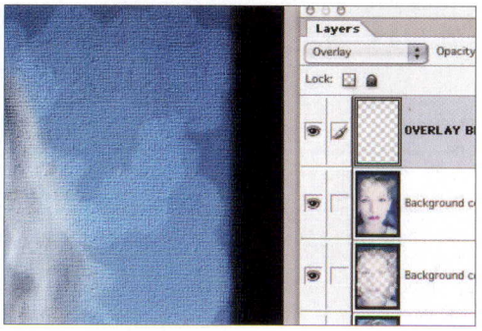
11: Nice and wet

Select the 'Eraser' tool from the toolbox and, from the pop-out 'Brush' palette, choose 'Special Effect Brushes' from the menu and select the 'Drippy Watercolor' brush.



12: Brush strokes

Start painting out the top layer with the 'Eraser' tool, which thanks to the 'wet' effect of the Drippy Watercolor brush we've selected begins to resemble brushstrokes from a heavily loaded watery paintbrush.

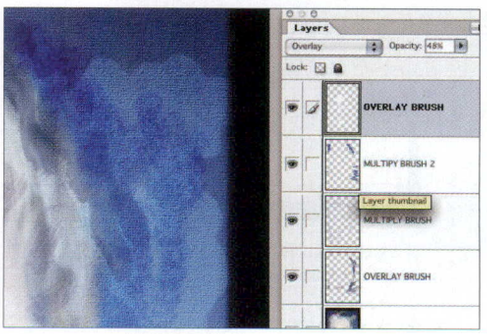


13: More texture

Create a new layer by clicking the document icon in the 'Layers' palette and set the Transparency to 'Overlay'. Choose the 'Brush' tool from the 'Tools' palette and select the 'Large Texture Stroke' brush from the 'Wet Media Brushes'.

14: Painting roughly

Begin painting with rough strokes, picking out detail and reinforcing texture. Experiment with different brushes and build up new layers using 'Multiply' layers with an opacity set to 50% or less to simulate darker paint.

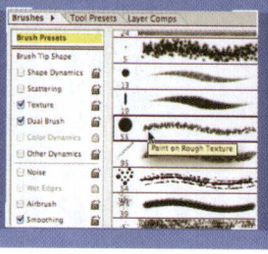


15: The highlights

To pick out highlights, create a layer set to Overlay with an Opacity of around 50% and using a simple Wet Media brush sketch in the detail. The results should look like watery white watercolour paint.

Customising your brushes

Each Photoshop brush comes with a preview which enables you to see the sort of effect you are going to get before you actually start painting. Although each brush comes complete with its own default settings, these can be overridden and saved as new brushes if you want to use your custom brush again.



The completed canvas

Take a look at how we achieved our finished watercolour image

Scanning secrets

The scan of the paint drips help to give the retouched image a touch of the real world. Photoshop makes it incredibly easy to import images from scanners, cameras and other applications.

Realism

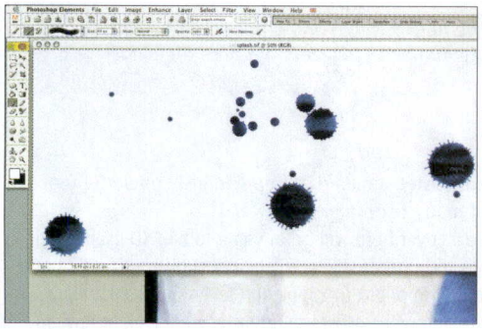
Using the 'Eraser' tool combined with a 'Special Effect' brush to parts of the top layer has created the impression of repeated brush strokes.

Blending in

Using a variety of brushes and blending modes helps create the look of layers of paint being added to the image in much the same way as real watercolour paint.

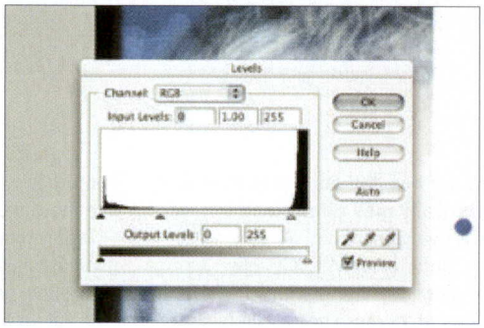
Keeping things subtle

The secret to creating a convincing canvas background is to be subtle. Toning down the default values conjures up a more realistic starting point for the painting.



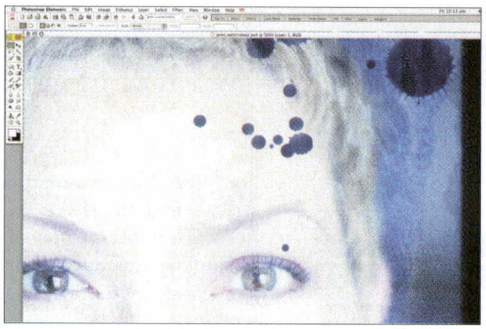
16: Add some realism

The results look like a convincing watercolour painting, but it's not going to be a hundred percent realistic until you've spilled some paint on it. Scan in some paint splashes ('File', 'Import' if you have a scanner attached) or open the supplied image 'Splash.tif' from the CD.



17: Keep whites bright

Paste your splashes into a new layer and, if necessary, scale and rotate into position ('Image', 'Rotate'). To ensure the background is completely white, open up the 'Levels' histogram again and drag the white triangle to the right.



18: The finished painting

Set the layer transparency to 'Multiply' and adjust the Opacity slightly so that the background texture begins to show through. You now have a realistic watercolour image, which could have been created by using real world materials.

[writer: Adam Watkins | hardware: Windows XP PC | software: Photoshop 7.0, C4D R8.5]

TEXTURISE A CINEMA 4D MODEL

Earlier we looked at lighting and shading techniques in Cinema 4D, here we show you how to texturise a Cinema 4D model with Photoshop

We added colour and grime to a photograph of a rusty dumpster to create a more interesting scene

ON THE CD

All of the Cinema 4D and Photoshop files needed to follow this tutorial can be found on your free CD

3D that is straight out of the box and not yet in the hands of a 3D artist is an intrinsically grey affair. That 'computery' grey plastic is everywhere and all 3D applications are good at making it. Unfortunately, many folk compensate for this by using the 'canned' textures within their application. This is not an improvement, because you begin to see the same wall with the same floor in reel after reel, and they all still have that computery feel that is a sure sign of a novice user.

One of the best ways to make your reel stand out is to create your own textures – all of them – and give these textures some grime. Sometimes these custom textures are painted from scratch and sometimes they are derived from photographs. In either case Photoshop is the industry standard, a tremendously powerful tool and the choice of many texture artists.

The method we'll cover here will be of value to all C4D users (and users of other apps too), because we will be covering specifically how to use both painting and photo-manipulation techniques to create the material for a rusty dumpster. Most importantly, we'll look at how to get those textures so that they fit into your scene, and stick to the right objects in the right place.

For this tutorial, we'll be using Photoshop 7.0; however Photoshop CS or older versions of Photoshop will work fine. So if you have C4D R8.5 (R8 and even R7 will work as well) and almost any version of Photoshop, you're ready to add colour (and dirt) to your scene. ■

Research, research, research

The key to good textures (and most good design) is lots of quality research. In this tutorial we've made extensive use of digital photographs. For most 3D projects there is no need to have extreme resolution, so almost any digital camera will do. But as you plan your project, take photos not only of surfaces but also of entire settings that will help you get a better feel for the sort of details your scene needs to have.

Keep your digital camera handy and your eyes wide open – you never know when you'll spot the perfect setting for the scene you've got in mind

YOURGUIDE

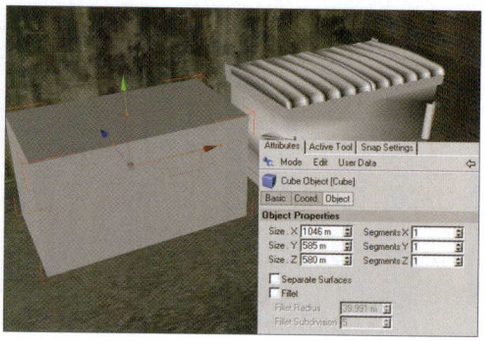
ADAM WATKINS has written five books and over 75 articles on 3D and digital video. He has a BFA in Theatre Set and Lighting Design, an MFA in 3D Animation from Utah State University, and is now director of Computer Graphic Arts at the University of the Incarnate Word in San Antonio, Texas. For info on CGA@UIW and its program visit **www.cgauiw.com**

Step-by-step: creating custom textures

Learn how to add custom textures to a Cinema 4D model with Photoshop

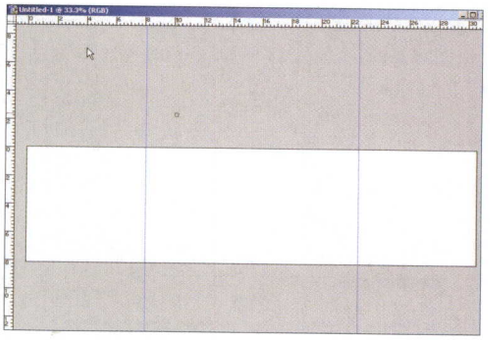
1: Copy the project files

From the CD, copy a folder called 'Supporting Files'. From this folder open '1UntexturedDumpster.c4d'. On your hard drive resave this scene as 'Tutorial.c4d' in the 'Supporting Files' folder. As we create textures, be sure to save these files in the 'Tex' folder that also resides within the 'Supporting Files' folder.



2: Find the approximate size

Because we create this texture from scratch, we need to know the proportions. Create a primitive cube within C4D that's about the size of the dumpster and make a note of the size .X .Y and .Z measurements in the 'Attributes Editor'. We'll use these for our pixel values.

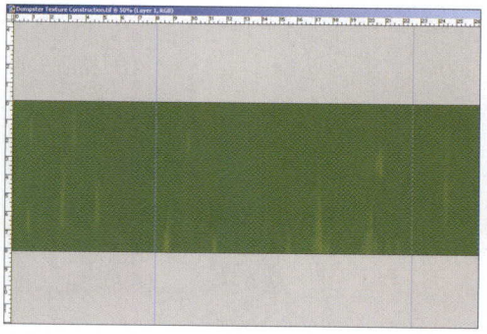


3: Create the texture canvas

We aren't going to worry about the back of the dumpster, but we'll need to create a canvas big enough to wrap around three edges. Create a new file that is 2,206 pixels wide – 1,046 (front) + 580x2 (sides) – and 585 pixels tall. Place guides 580 pixels into either side.

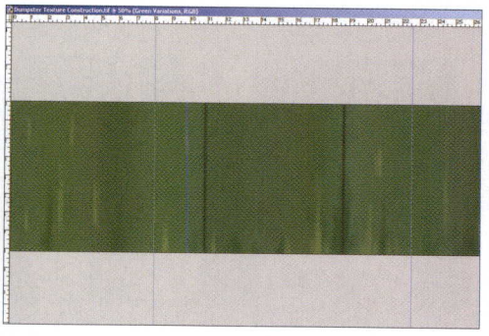
4: Fill the canvas with green

This screenshot is a photograph taken with an inexpensive 2-megapixel camera of an interesting dumpster, which will be the basis of our project. It all starts out with a dark green base. Select a dark green foreground colour and use 'Edit', 'Fill' (use 'Foreground Color') to fill the entire canvas.



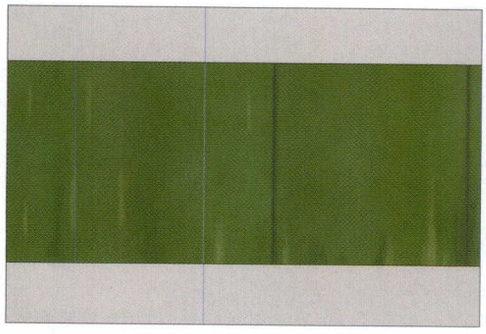
5: Paint in the yellow streaks

Using the 'Brush' tool we'll add some of the yellow streaks. Be sure to do this on a new layer. However, when you activate the 'Brush' tool, reduce the opacity to around 40% – you can paint over a painted spot to increase its intensity, but you don't want anything too overtly 'painted'.



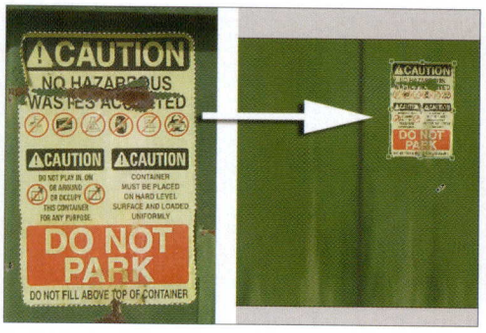
6: Adding some variation

Again, on separate layers, add streaks in variations of dark green and even some greens that approach black. Also, you want these lines to be straight, so be sure to click then hold the Shift key down, drag vertically across the canvas and then release both the mouse and Shift. Repeat.



7: Unify with the Clouds filter

To help unify our streaks, we'll render some colour variation across the surface. Select a light green for your foreground colour and a dark green for the background. Create a new layer and select 'Filter', 'Render'. 'Clouds'. In the 'Layers' palette reduce the opacity of this layer to suit.



8: A touch of realism

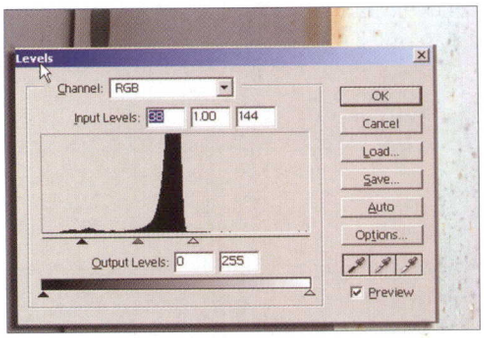
In the 'Raw Photos' folder is a file called 'Sign Source.tif'. Use the 'Magnetic Lasso' tool to select around the sign. Use the Alt key to deselect the tear in the middle. Copy this selection and then paste it in the 'Texture' file. Use the 'Free Transform' tool to resize the pasted sign.

9: Add more numbers

Also in the 'Raw Photos' folder is a file called 'Number Source.tif'. Repeat the last step with these two numbers. Note that each of these elements is being pasted into its own layer. Finally, take the layer with the rendered clouds and move it to the top to unify the sign and the numbers.

TEXTURISE A CINEMA 4D MODEL

Continued...

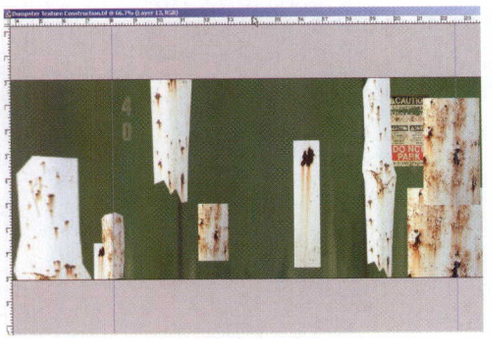


10: Adjusting the source levels

We are going to be lifting some rust off other photographs to place on our dumpster. However, often the images at hand are less than ideal. 'Rust 1 Source.tif' is in the 'Raw Photos' folder; to help facilitate the easy selecting of the rust, adjust the levels to pump up the contrast.

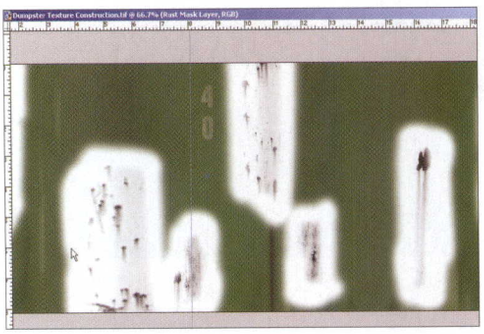
11: Adjust the remaining photos

In 'Raw Photos' is a collection of other rust photos. Adjust each one to have a high contrast. Each of the photos is at a different state, taken at different times of day and from different angles. Adjust them so you that get some true white off the posts.



12 Lifting rust onto the texture

With the 'Lasso' tool select regions of rust that you like from different rust photos. Copy each and paste it into the texture. Use the 'Free Transform' tool to resize and place each patch. Merge all the layers that contain rust into one layer.

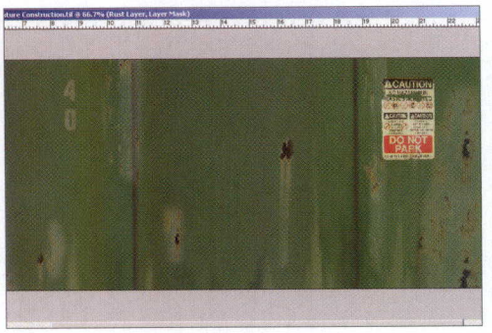


13: Smoothing the transition

Duplicate the layer with all the rust. Use 'Image', 'Adjustments', 'Desaturate' to make the image greyscale. Finally, to make this rust so it doesn't have linear blocks around it, use the 'Brush' tool (with a very soft edge) to paint pure white around the regions of rust. This will make the transition smooth.

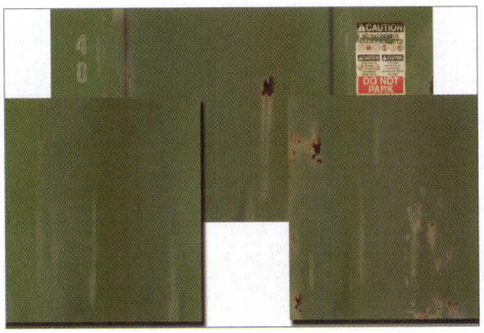
14: Adding in a mask

Add a mask ('Layer', 'Add Layer Mask', 'Reveal All') to the coloured rust layer. Select all of the greyscale rust layer (Ctrl-click) and 'Edit', 'Copy'. Select the mask (not the image) for the coloured rust layer and hit '\', then 'Edit', 'Paste'. Move the red mask into place to match the coloured layer. Hit '\' again.



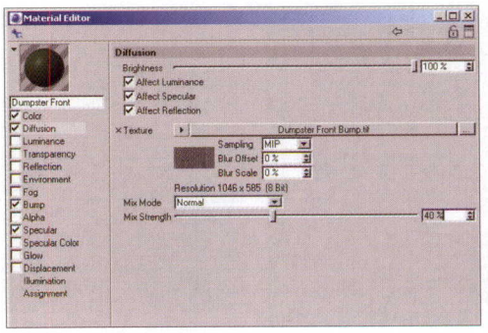
15: Inverse the mask

Delete the layer that was the greyscale rust layer. Select the mask of the coloured rust layer and select 'Adjustments', 'Inverse'. Your rust will appear without the white. You may wish to paint a bit on the mask to further soften transitions or remove blotches.



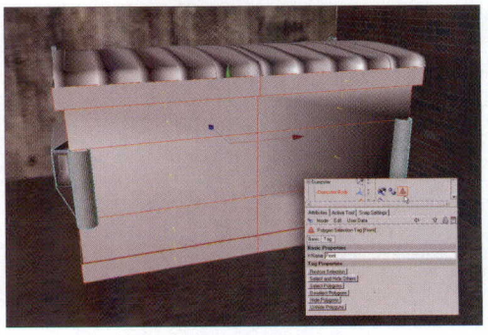
16: Separate your texture

Now we need to separate this big texture into three smaller textures for placement on each side. Save these as 'FrontColour', 'Side1Colour' and 'Side2Colour'. Convert each to 'Greyscale' and save each as 'FrontBumpDiffuse', 'Side1BumpDiffuse' and 'Side2BumpDiffuse'.



17: Importing into C4D

Finally, in Cinema 4D, create three materials ('Dumpster Front', 'Dumpster Side1' and 'Dumpster Side2') and import each of these textures into the 'Color', 'Bump' and 'Diffusion' channels.



18: Create selection set for front

In C4D, in 'Polygon' mode, select the polygons that make up the front of the dumpster. Create a selection set with 'Selection', 'Set Selection'. This will create a new tag for the 'Dumpster Body' object. Name this tag 'Front'.

CREATIVEPRIMER

Paint with the right tools

In this tutorial, we primarily used a mouse to paint in shapes and work with the images. However, as your materials increase in originality and complexity, you'll find yourself actually painting more and more. A digitising tablet (such as a Wacom tablet) will then become a very intuitive and important tool. If you do a lot of texture creation, or plan to, an investment in a graphics tablet – even a small one – will be a tremendous help.

As you begin to do more actual painting, you will find a graphics tablet, such as this one from Wacom, an indispensable aid

SAYWHAT?

MASKS

Masks are a form of non-destructive hiding/showing of various parts of an image. Photoshop makes use of masks that can be painted black or white to show or hide parts of the image. If you wish to hide part of a layer, paint the mask black. The beauty is that if you want to show what you've hidden, you can just paint over it with white – there's no need to erase.

Anatomy of a 'hybrid' texture

Many of the most effective textures are a combination of digital painting and photo-manipulation. Here's an overview of what's what for the final dumpster texture

Background

The background was created with a flat green lifted from research photos and laid across the entire texture as a base

The sign

The sign was lifted directly from a digital photo. It was simply selected with the 'Magic Wand' tool and copy/pasted onto the finished texture

Unification

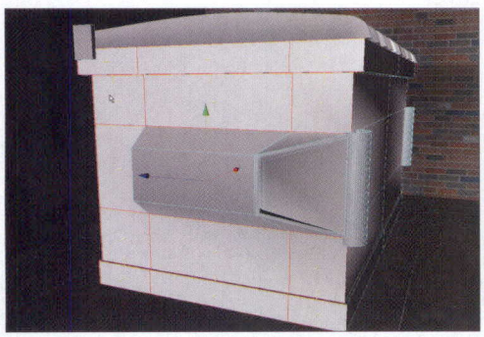
To help grime everything and unify the look, a semi-transparent layer was created with 'Filter', 'Render', 'Clouds' with a dark and a light green

Grime and streaks

Grime and sun streaks were painted by hand using the 'Brush' tool. Colours were simple variations of the base green. You can paint it any colour you like

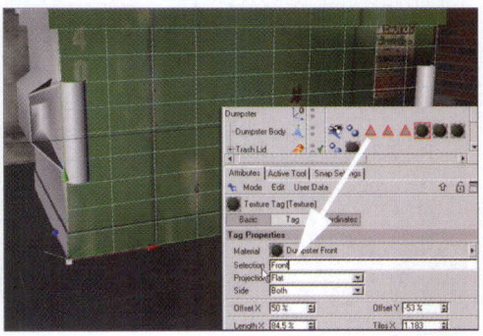
Lifting the rust

The trickiest part was lifting the rust off source photography and localising just the rust through effective masks



19: Create selection sets for sides

Repeat this process for both sides – but make sure that you click on any other tag besides a 'Selection Set' tag before creating a new selection set, to avoid overwriting past selection sets. Name each of these selection sets 'Side1' and 'Side2'.



20: Assign materials and align

Assign the three materials ('Dumpster Front', 'Dumpster Side1', 'Dumpster Side2') to the 'Dumpster Body'. To assign each to its own selection set, hit the 'Texture' tag in the 'Objects Manager' and enter the name of each selection set in 'Selection Input'. Change the projection to 'Flat' and use the 'Texture' tool to align.

21: Finishing up

The only things left should be the lift holes and the bumpers. For these, shown untextured here, create new selection sets and assign any of the 'Dumpster Front', 'Dumpster Side1' or 'Dumpster Side2' materials to them. Make sure to use the 'Texture' tool to adjust the size to be appropriate.

[writer: Simon Foster | hardware: Windows XP PC | software: LightWave 7.5, Photoshop 7.0

CREATE A HIGH-RES MODEL

Discover how to use the texturing tools in LightWave and Photoshop, as we transform our rough-and-ready model into a work of art...

ON THE CD

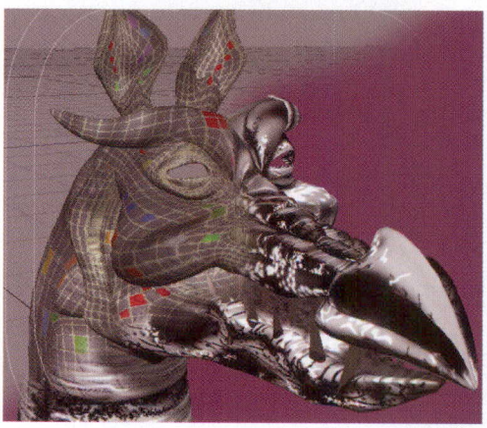
All of the LightWave and Photoshop files you need to complete this project can be found on your free CD

This tutorial will take an untextured model of a dragon named Eric (not scary we know – he's a fruitarian) and texture him using LightWave and Photoshop. It pretty much divides into LightWave for the first half and Photoshop for the second and you'll find all the files on the cover disc, so even if you use only one of these brilliant packages there's something here for you.

When it comes to texturing models, there are two methods. The first is procedural texturing, but we'll focus on applying photographic or painted images on the model to get a high level of detail. By building up a series of colour maps, specular maps, diffuse, glossiness and bump maps, you can make models of astonishing realism.

But there's a problem. Imagine you had to wrap a sheet of newspaper around a basketball. You'd get distortions and creases in the paper because you'd be trying to get a flat shape to fit a non-flat object. Wouldn't it be good if you could peel the basketball into several bits, stick on the newspaper and then reassemble it? In theory you'd end up with a ball you could read without any distortion of the letters and images on the paper. Well, that's what UV mapping is all about. You make a flat image, or UV map, of your object and apply your images to it.

We'll use LightWave 7.5 and Photoshop 7, but those with older versions will still be able to keep pace. ■



Even the toughest dragon benefits from foundation work and a little underwiring for its important places

Meet Eric. Modelled In LightWave 7.5 and painted in Photoshop. Hobbies include flossing, Ikebana and levelling small to medium-sized villages

CREATIVEPRIMER

Why Photoshop?

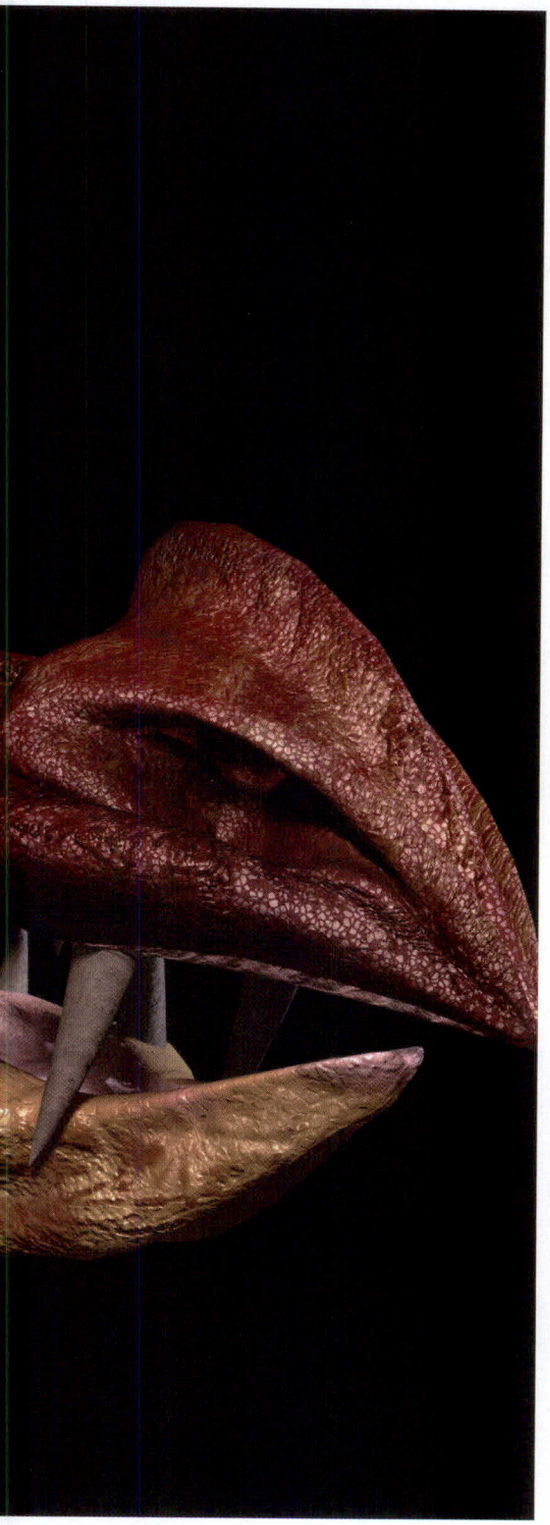
There are many bitmap-editing programs out there and Photoshop is one of the most expensive. So why is it regarded as indispensable by so many industry professionals? One can argue that you have to learn it because everyone else uses it, and certainly it helps that there's so much literature about it covering all its work aspects. But in the end it comes down to elegance. Your work just flows. Everything is where it should be. We prefer that to any fancy set of filters every time!

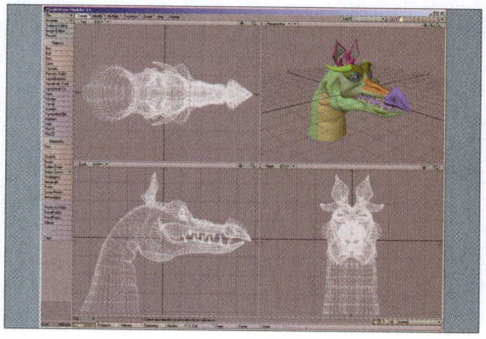
YOURGUIDE

SIMON FOSTER gained his graphic design degree at Manchester and went on to work in a number of graphic design studios around the UK. He currently runs his own business and, in terms of 3D work, describes himself as being part of the '*Babylon 5* boomer' generation. Responsible for the visuals in some of the UK's best-selling computer games, he can't believe how lucky he is to be a designer in the middle of the biggest revolution in the arts for the past 500 years.

Step-by-step: texturing a LightWave model

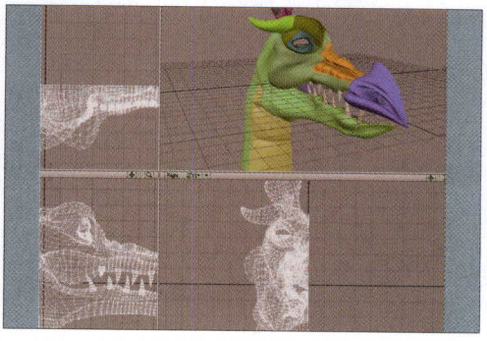
Eric needs your help with his big makeover. Let's begin in LightWave...





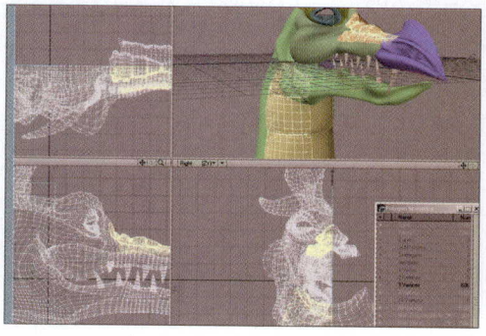
1: Be prepared

The key to UV mapping is preparation. The more time you spend preparing your maps the better. Start Modeler and load 'Eric01.lwo' from the 'Tutorials' folder. Click in the top left window where it says 'top' and select 'UV Texture'. This will be where your UV map is laid out.



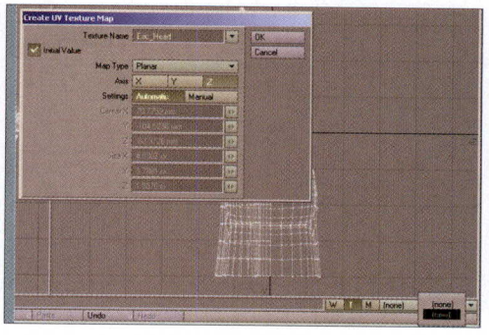
2: Delete the polygons

Eric has some basic surfaces applied. But we want you to delete all the polygons that lie in the '+Z' half of the screen. Huh? Yes – because Eric is a symmetrical dragon (more or less), so we can use one set of maps for both sides of the body.



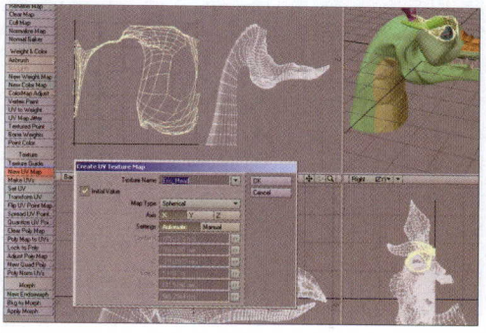
3: Do it with mirrors

Press 'W' and select the 'Eric_Nose_Top' and 'Eric_Frontbelly' polygons, and 'Shift+V' to mirror them. These are highly visible areas and we don't want problems with making two halves of a UV map join up. We can also break up Eric's symmetry by varying the maps around his midsection.



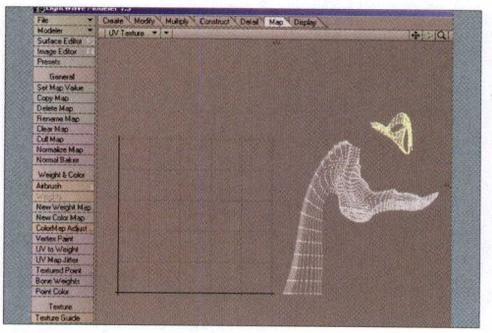
4: Create a new texture map

Deselect everything. Press 'Ctrl+U' to unweld all the points and then select 'Eric_Side'. In the bottom right of the screen, press 'T' and 'new' as shown above for a new UV texture map. In the pop-up box select 'Planar' as the Map type, running down the Z axis.



5: Select the polygons

You'll see the 'Eric_Side' surface on the UV grid. For now, though, move it to one side and deselect the surface. Select all the 'Eric_Brow' polygons and in the 'Map' menu select 'New UV Map'. The UV dialog box pops up. Reselect 'Eric_Head', Map type 'Planar' on the Z axis.



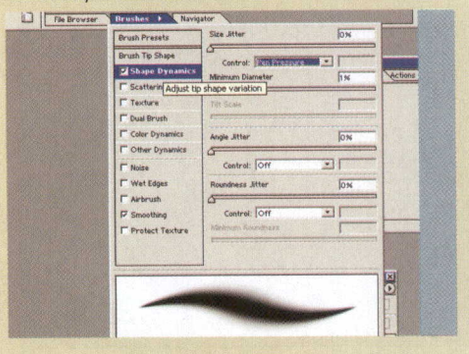
6: Sharing the map

We now have two surfaces sharing the same UV map, which is what we want. In the UV window, resize the selected polygons so they are roughly in the right proportions with the 'Eric_Side' polygons, and move them out of the UV Grid so they don't interfere with new surfaces.

CREATE A HIGH-RES MODEL

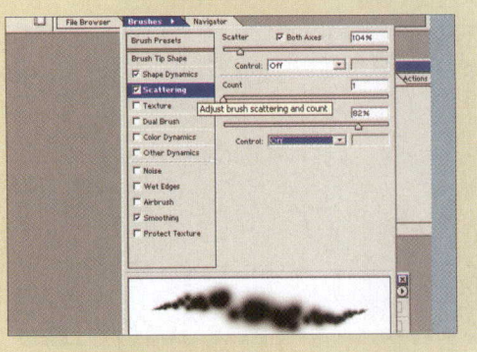
Brushes palette

There are a variety of options in the 'Brushes' palette which let you customise brushes and create favourites



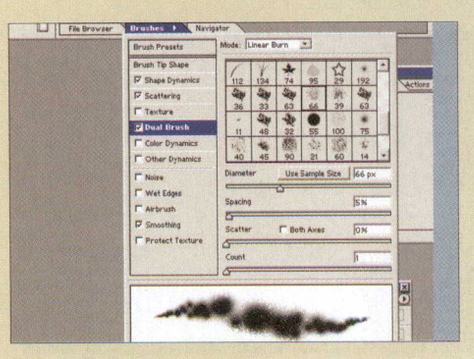
Building your brush

Building up a brush in Photoshop is a snap these days. This dialog box makes it easy to quickly alter the brush's parameters. Start by selecting the basic brush shape that you want, and you can also alter the properties of a pen and graphics tablet if you have these.



Scattering

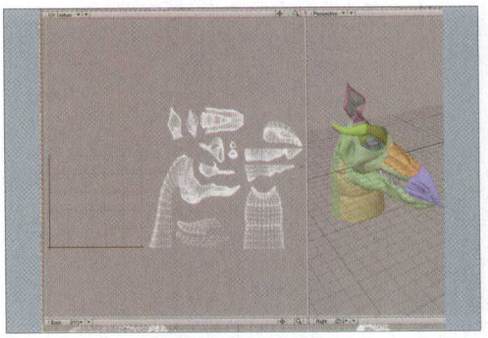
The 'Scattering' option is something we've used a lot in this project. It stops the brush from being a continuous stroke and instead lays down a series of blobs. The amounts can be altered as well as how widely they are scattered – and also how your pen and tablet apply them.



Dual Brush

'Dual Brush' is a newish and very special option. It allows you to combine the properties of different brushes to get some special effects. With all these options to hand, it makes sense to save your favourite customised brushes so you can summon them as and when you need them.

Continued...

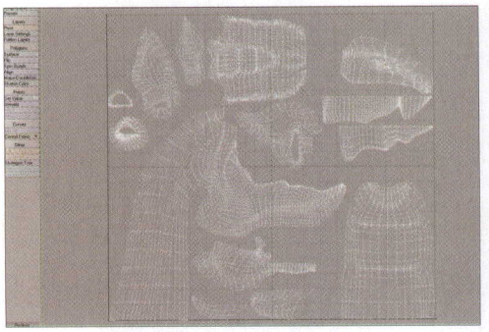


7: Repeat the process

Repeat steps five and six for all the remaining surfaces – be careful to keep reselecting the original 'Eric_Head' UV map. Stick with 'Planar' mapping but vary the axis of the maps to get the best unfolding of the surface in your UV file. Include every surface apart from 'Eric_Teeth'.

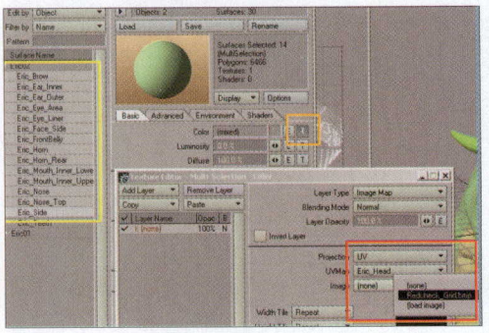
8: The long haul

Maximise your UV viewport. Move the polygons so that they fit inside the U and V axes. Now you are in for a long haul. Start moving points to spread out the surfaces so polygons don't overlap. You can use 'Magnet' but not 'Dragnet', because it will pull polygons apart.



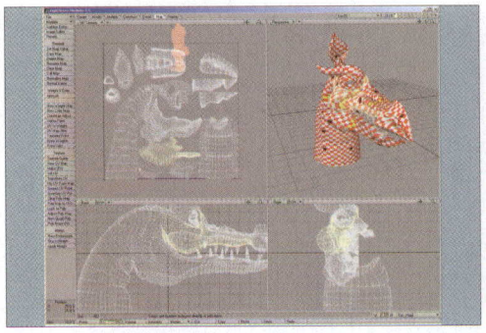
9: Results

You should eventually get something like the above image. Press 'M' to merge the points back. You unwelded them earlier so you could move them round more easily in the UV view. For the next part, we suggest you call up 'Eric02.lwo' so that we work from the same model.



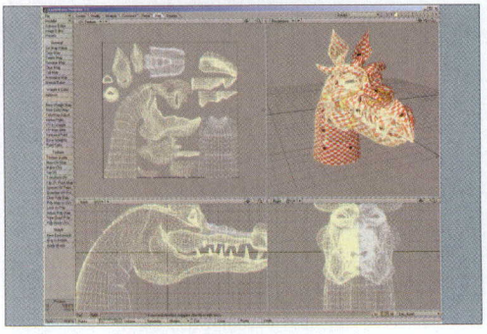
10: Surface editor

Call up the 'Surface' editor and Shift-click to select all surfaces apart from 'Eric_Teeth'. Go to the 'Texture' ('T') button next to 'Colour' and select 'UV Projection'. For the UV map select 'Eric_Head'; load 'Redcheck_Grid.bmp' from the 'DVD Images' directory. Untick 'Pixel Blending' and 'Texture Antialiasing'.



11: Getting cheeky

Ooh! There's Eric with a check pattern on him. His cheek squares look a little big, so lasso-select the 'Cheek' polygons in the UV view and press 'H' to stretch them. You will see the squares update in real time on Eric's cheek. Carry on fine-tuning your UV map.



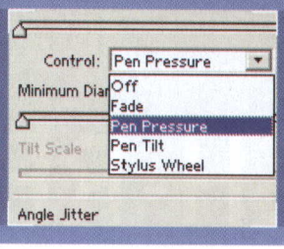
12: Safe to paint

When you get to a stage where you feel you can paint on the UV map without too many distortion problems (the squares aren't diamonds), select every surface except 'Eric_FrontBelly' and 'Eric_Nose_Top'. Mirror the surfaces apart from these two, and save the head complete with red checks as 'Eric03.lwo'.

CREATIVEPRIMER

Pen Pressure

You'll see this little blue highlighted bit of text in one or two places in Photoshop. It relates to a pressure-sensitive pen and tablet. Even before the advent of artistic brushes in Photoshop 7.0, a pressure-sensitive pen was essential if you wanted to produce realistic and sensitive illustrations. Now, with the new brush set it's absolutely vital. You don't believe us? Go and throw some clay pots. Oh – and use wooden mallets instead of your hands. It really is that different...



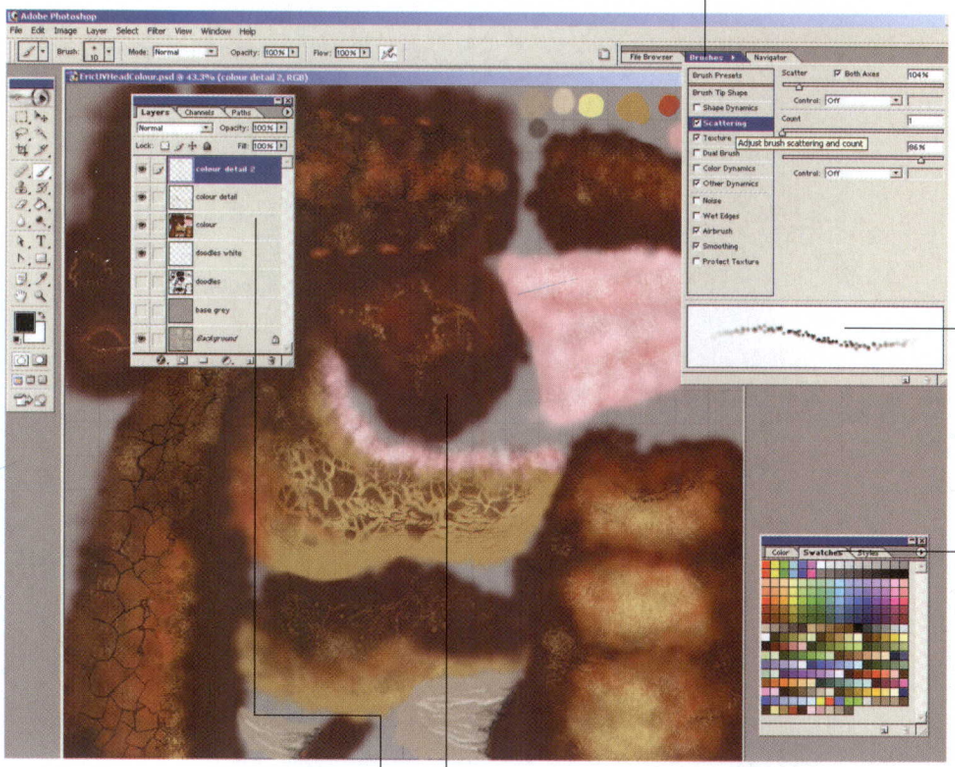
The 'Pen Pressure' text refers to the pen and tablet – which form a very important part of any digital creative's equipment

WEBRESOURCES

www.flay.com/start.cfm – The newspaper for LightWave users
http://members.shaw.ca/lightwavetutorials/Main_Menu.htm – How do they find so many LightWave tutorials online?
www.newtek.com – LightWave's official site
www.adobe.com/products/photoshop/main.html – Photoshop's official site
www.imphead.com/links/index.html – A set of links for anyone in need of inspiration

The anatomy of Photoshop texturing

When you do a session in Photoshop, there are tools you'll come back to again and again. Here are some of the main ones...



Brushes palette

Much improved in Photoshop 7.0, you can now choose from a variety of brushes or make your own custom ones

View changes

Another useful aspect in Photoshop 7 is the ability to see the changes you make to your brush in real time

Swatches palette

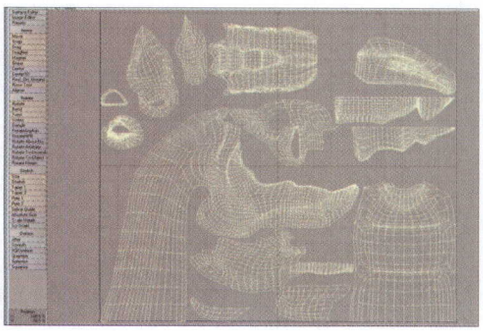
Build up your own set of swatches for a particular illustration project to keep your colours consistent

Layers palette

Understanding layers is essential to working efficiently in Photoshop. Forget about scrubbing away on just one canvas – in Photoshop you can have dozens in one image

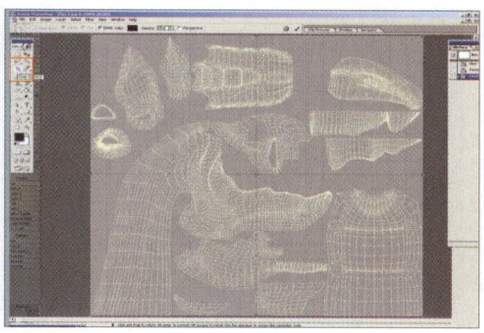
Main file

This is where you add all your paint strokes and build up your texture, be it colour or a greyscale image



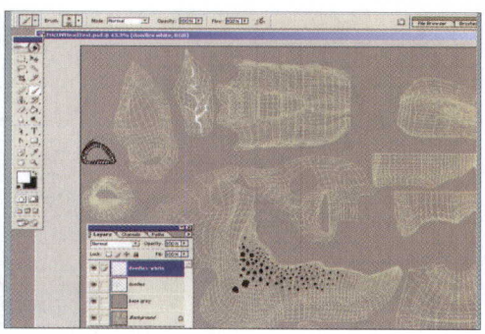
13: Capture the screenshot

Hover your cursor over the UV view and press '0' on the numeric keypad to maximise the window. Zoom in and capture the screenshot. On a PC it means hitting 'Prt Scr' on your keyboard, top right corner. Start Photoshop and create a file the same resolution as your monitor.



14: Crop and resize

Hit 'Ctrl+V' to paste your screenshot into the image. Using the 'Crop' tool, carefully crop to the edges of the UV map. Go to 'Image','Image Size' and resize the document. Because we have plenty of RAM we're going to resize to 2048 by 2048. Save your file as 'EricUVHeadBase.jpg'.



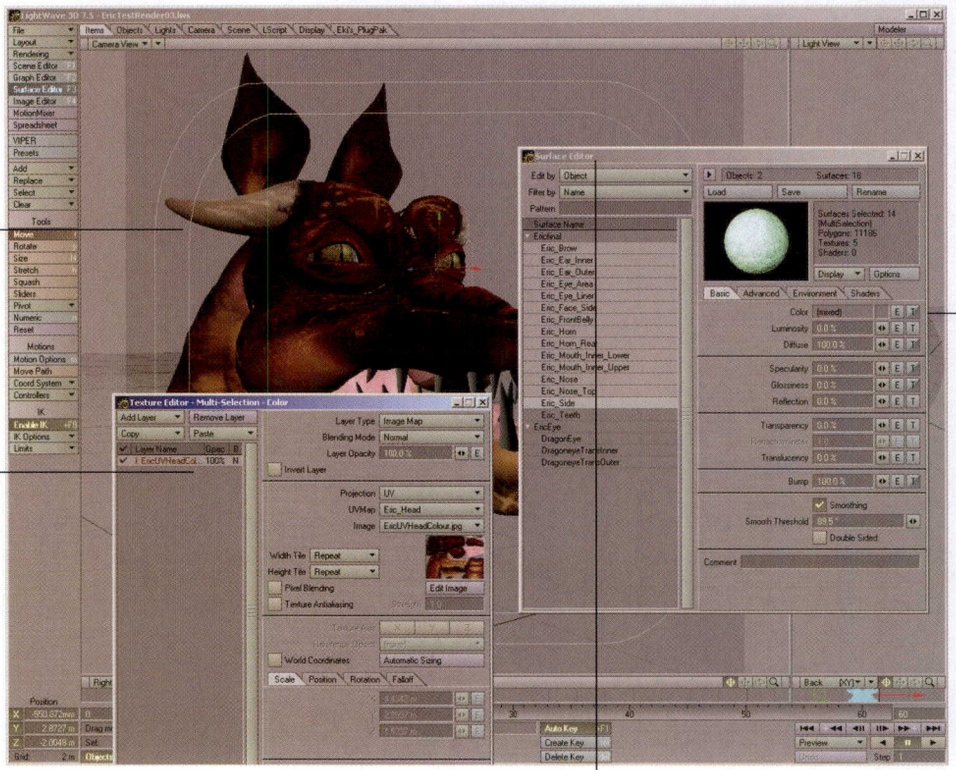
15: Add layers

Add a layer, call it 'base grey' and flood it with RGB colour (128, 128, 128), then make it '50%' opacity. Add another layer, call it 'doodles' and use a black brush to block in details of where you'd like Eric's details to go. Add another layer called 'doodles white' for white details.

CREATE A HIGH-RES MODEL

Get to grips with the LightWave interface

What do you mean you've never used LightWave before? Use this quick guide to the key elements of this 3D modelling program's interface to boost your knowledge



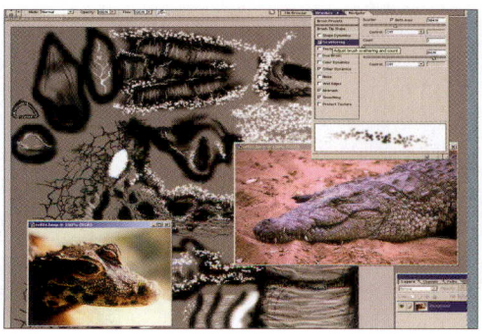
Preview window
This is where you get real-time feedback and can see how your UV image maps are fitting your model

Texture editor
Here you can layer textures on top of each other in different levels of transparency to achieve striking or subtle effects

'T' buttons
Those little 'T' buttons next to the 'Surface Properties' are what you press to access 'Texture Editor' options, be they procedural, bitmap-based or gradient effects

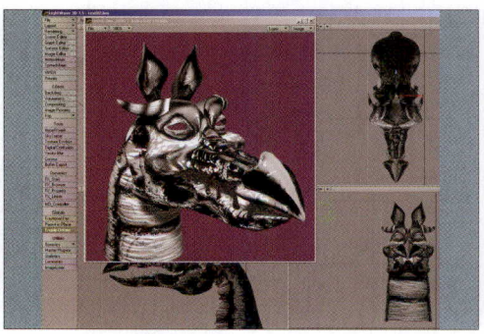
Surface editor
This is where you can apply materials to your objects to get high levels of photorealism, cartoony effects, etc. The 'Surface' editor is the image nerve centre

Continued...



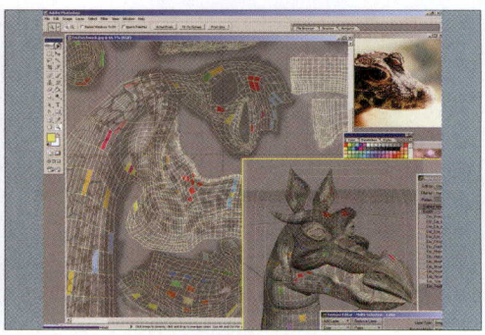
16: Oops...

We just made two classic mistakes! One is to work with no reference material – a quick search on the Web gets us some crocodile reference pics. The other is to work with the same size, same style brush for everything. Vary your brushes to vary your textures.



17: Make some changes

In LightWave, load 'EricTestRender01.lws' and do a test render. Yuck! That certainly needs some changes. But that's the whole point of a base doodle file. We can see at an early stage what needs fixing and where. Go back and adjust your doodle file until you get a better result.



18: A trick of the trade

Here's a little trick. Make the two doodle layers and grey layer '20%' opaque and start flooding the grey areas in between the UV background with different bright hues, so you end up with a patchwork of colours. Save this as 'EricPatchwork.jpg' and do a render to see where things lie.

JARGONBUSTER

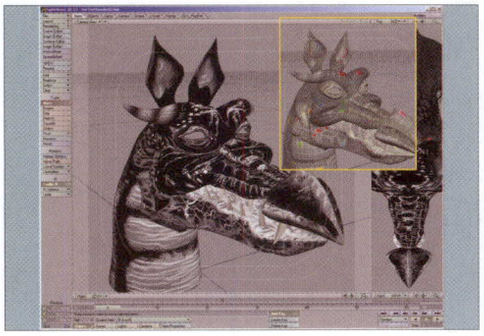
RGB VALUES
Stands for Red, Green and Blue values. You mix different amounts together to get different colours.

UV MAP
A special kind of map used to surface an irregularly shaped object. For the axes, think of it as U (long) and V(ertical).

Map type
Images can be mapped 'Planar' (like text printed onto a piece of paper), 'Cylindrical' (text wrapped around a washing up liquid bottle) 'Spherical' (text showing countries on a globe) or UV maps.

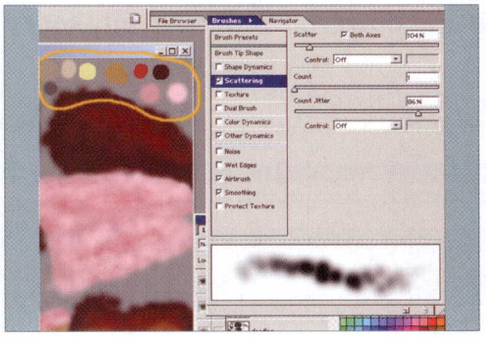
3DINSPIRATION

When I was at college a fellow student did a kingfisher sitting on top of a cola can. I'm sure they were being post modern and ironic, because at the time they were the two things that everyone felt they had to do to prove their mettle. These days it seems to be dragon heads for just about everyone in 3D at some point. But that's not too bad. They are complex and awesome beasts, and being mythical you have licence to express yourself. Oh fine! Next time I'll do a cola can just for you...



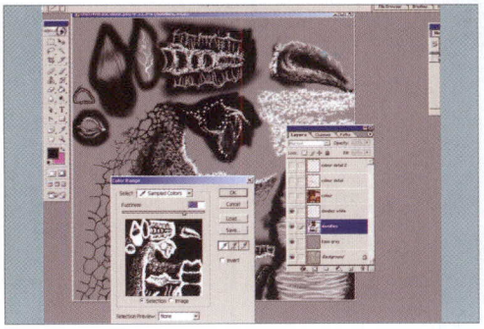
19: Create a base file

We've now got a clearer idea of what goes where. Replace the old UV background layer with the 'EricPatchwork' file, and keep working up the black and white doodle layers and doing test renders in LightWave until you have a base file you're happy with. We'll do exciting things with this file.



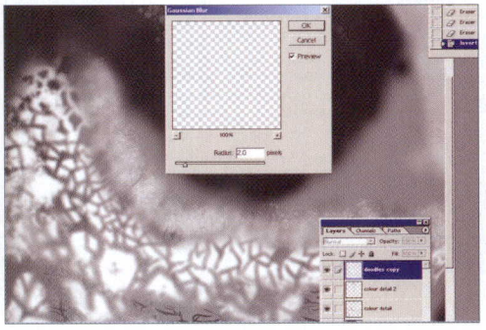
20: Getting arty

Apply broad strokes where you want the colour to go. Vary the size and pressure of the brush. We're checking the 'Scattering' option in the 'Brush' palette for a mottled effect. We're also putting down colour swatches in an unused section of the file so we can keep consistent hues.



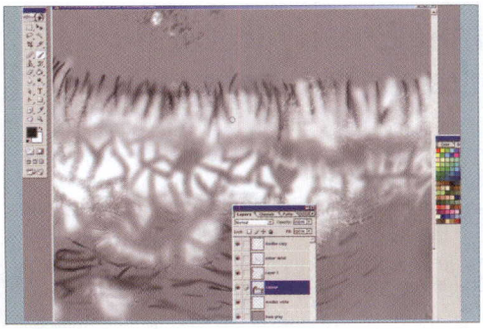
21: Active doodles

Make the black doodles layer active. Go to 'Selection, 'Colour Range' and set the fuzziness to around 150. Sample the black areas and use this selection to add smaller detail to a new layer called 'colour detail'. Hit 'Ctrl+Shift+I' to invert the mask and finalise the details.



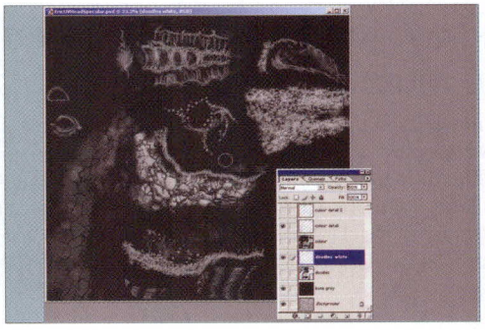
22: Work on the bump map

It's time to work on the greyscale bump map. Desaturate the layers and duplicate the black doodles layer. Erase everything apart from the scales under the chin. Press 'Ctrl+I' to invert the layer and set the Gaussian blur to '2' pixels. That's a lot quicker than painting it all over again!



23: Build a complete bump map

Continue isolating parts from the black and white doodle layers and adjusting them to build up a complete bump map. Augment the image with some brushwork. Don't forget to flatten the images when you're ready to save them. Use these techniques to build up all your UV model surface maps.



24: Rendering and tweaking

We don't want Eric to be too shiny all over, so for the specular map reduce the brightness of the flat grey level. When all the maps are done it's a snap to apply them in the same way as you applied the colour map. Render, tweak, render, tweak, render – enjoy!

The different surface types

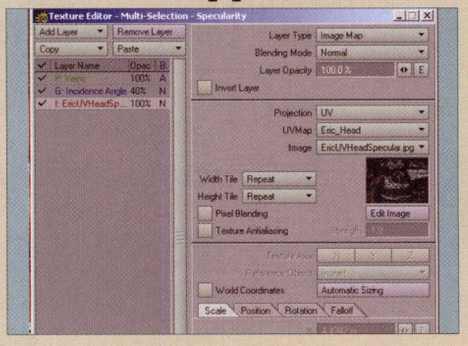
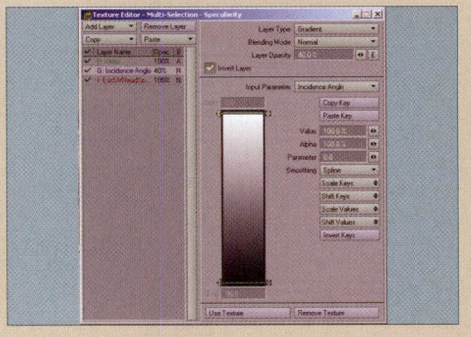


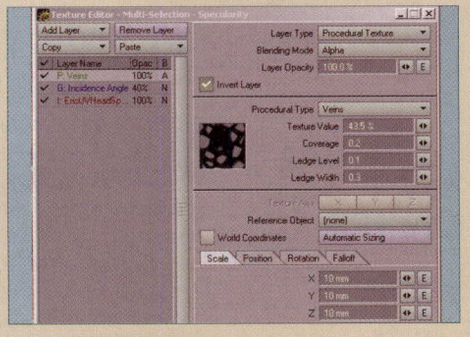
Image maps

The first surface type in the 'Texture' editor is the image map, which is just what we've been working with for this tutorial. We've unchecked 'Pixel Blending' and 'Antialiasing' to avoid getting a fuzzy image. We want the full impact of the image, so we've set the opacity to '100%'.



Gradients

The second is the gradient. Introduced in LightWave 6, gradients are vital for all sorts of wonderful effects, most especially 'fresnel', where an object's properties change depending on what angle you view it from. We want the effect to be subtle, so we've reduced the opacity to '40%'.



Procedural textures

The third is procedural textures. While they can't do complicated things like depict the wrinkles in the face of an old man or details such as lettering, they do have the advantage that no matter how close you are to them they won't turn into pixels, as an image map will.

[writer: Clive Parker | hardware: Windows XP PC | software: ImageReady 7.0

CREATE AN INTERACTIVE INTERFACE

Introducing the ImageReady 7.0 interface

ImageReady is Photoshop's Web-specific sibling. Use this interface guide to get started with this flexible and powerful Web creativity tool

Toolbox
Very similar to the Photoshop toolbox, but with several subtle additions in the form of tools for creating Web specific content

The Optimize Palette
Squash graphics down for faster loading by configuring and storing compression settings here

Slice guides
The blue lines you can see on this image are guides used to denote where the slices will occur in this graphical interface

Rollovers palette
Create, view and set options for the rollover states in your graphics here. Click the 'Create Rollover State' icon to make adjustments to your graphics

The Animation palette
This palette gives you the ability to produce, view and tweak options for each of the frames in an animation

Document window
This is where the image you are currently working on is displayed, in this case our interactive Web interface

We show you how to use Photoshop and ImageReady to create a lively Web site interface festooned with rollovers and animations

ON THE CD
You'll find every file you need to complete this tutorial on your free CD-ROM

It is generally acknowledged that Photoshop and its accompanying Web graphics application, ImageReady, are the bitmap tools of choice for graphics professionals for Web, print and CD-ROM/DVD production. Photoshop's wealth of tools and features can be used to create stunning images and interfaces using animation, layers, rollovers and other great tools.

In this tutorial we're going to build an interactive interface for a Web site by taking a layered Photoshop image and turning it into an animation in ImageReady. This allows us to save it as an optimised animated GIF image and use it for the background image for a table.

The other elements of the interface will sit inside nested tables in the original table. The active part of the interface will be made up of animated GIFs, rollovers and sliced images created in ImageReady. We're going to use Dreamweaver MX to lay out the page, but because the interface uses tables for layout, you can create your page in any Web design application.

You will need to make your top layer of the interface by creating an image with the background image as the bottom layer. This enables you to lay out the top elements of the interface without blocking elements of the background image. When you finally export your complete interface, simply make the background guide image invisible and it will not be exported. After exporting the slices and other areas of the final interface, the table can be nested inside the table that contains the original animated GIF image. It sounds confusing but it's relatively simple... honestly! ■

WEBRESOURCES

graphicssoft.about.com/library/tuts/ bltut26a.html
There are lots of tutorials on this Web site for many different applications. The Kissing Fish animation featured here is a simple but effective example of creating an animation within ImageReady.

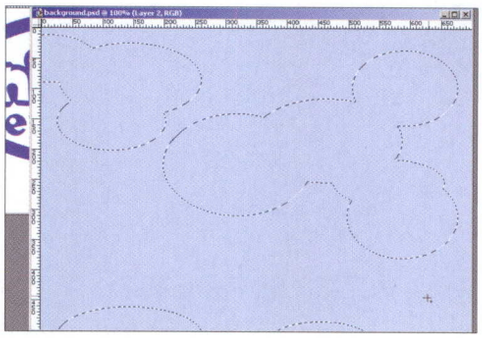
www.stickysauce.com/tutorials
About 20 different intermediate to advanced tutorials on this Web site will help you get the most from Photoshop and ImageReady. Try the Animated Fade Buttons tutorial and the Mask Animation tutorial – they're two of the best.

YOURGUIDE

CLIVE PARKER became interested in Web site design after working on the launch of an Internet magazine in 1994. After writing a book on HTML design, he worked as a freelance designer until 1998 alongside his 'real' jobs. Since then, he's been a full-time manager for various newspaper and TV station Web sites. See his current work at **www.htv-west.co.uk.**

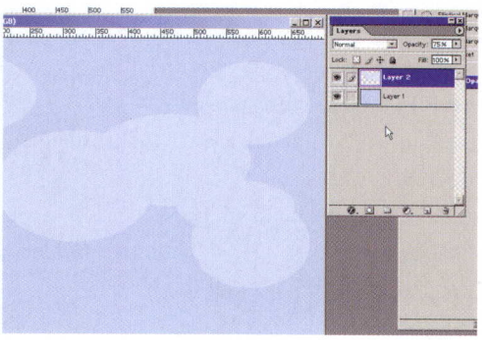
Step-by-step: create an imaginative Web site interface

Discover how to combine Photoshop and ImageReady to create an interactive interface



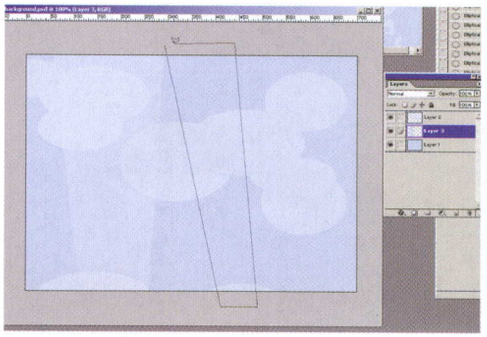
1: Create your background

Open Photoshop and create a new image 700x500 pixels with a transparent background. This is going to look like the sky with clouds, so fill the layer with a pale blue. Create a new layer and use the 'Elliptical Marquee' tool to create overlapping ellipses to represent clouds on the new layer.



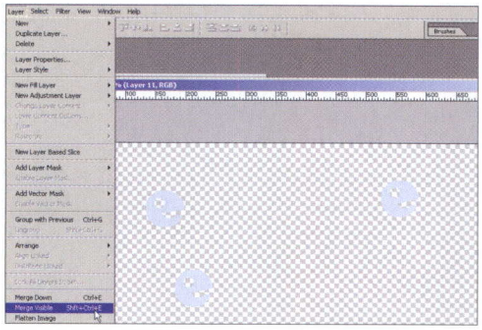
2: Use opacity

Select an even lighter blue for the cloud – practically a bluish white colour. Select the 'Fill' tool and fill the 'clouds' with the new colour. Use the 'Opacity' slider in the 'Layers' palette to set the opacity of the layer to '75%' for translucent effect. Save the file (see 'background.psd' on the CD).



3: Add searchlights

The interface is going to be used for some pages about an animation festival, so we'll add a Hollywood-style searchlight. Create a new layer below the cloud layer and use the 'Polygonal Lasso' tool to create some wedge-shaped outlines. Fill with a whitish-blue at '80%' opacity and save.

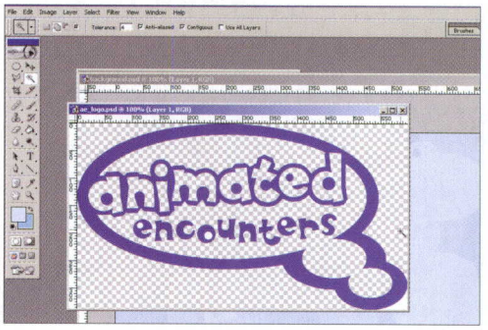


4: Add some elements

You can jazz up the background by adding some floating letters. Open the file 'e.psd' on the CD and cut and paste it into the 'background.psd' image a few times. Every time you paste it a new layer is created. Make the other layers invisible and pick 'Merge Visible' from 'Layers' to flatten the 'e' layers.

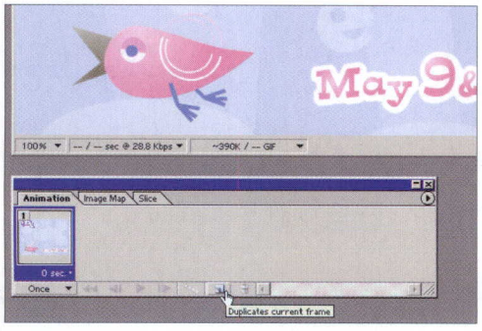
5: More elements

Open 'date.psd' and 'ae_bird.psd' in Photoshop. Drag the image layers onto the 'background.psd' image; each will create a new layer. It's a good idea to name your layers for identification. Place the date at the bottom right and the bird at the bottom left.



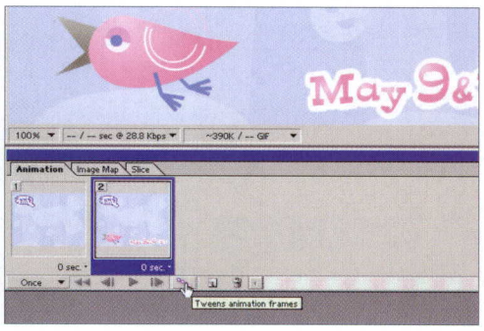
6: Final touches

Open the 'ae_logo.psd' image in Photoshop and use the 'Magic Wand' tool to select and delete all of the white areas of the image. Now shrink the logo image down to a width of 200 pixels and cut and paste the logo into the top-left corner of the 'background.psd' image and save it to disk.



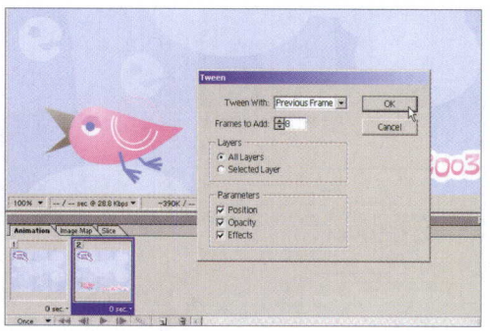
7: Create background animation

Close Photoshop, open ImageReady and then open the 'background.psd' image. We're going to animate the bird layer and the date layer, so we need to add more frames. Select the frame in the 'Animation' palette and now click on the 'New frame' icon to duplicate the first frame.



8: Time to tween

Select the second frame, select the date layer and use the cursor keys to move it to its final position. Now select the first frame and move the date layer out of the bottom of the frame. Repeat for the bird layer with it 'flying' in from the right, then select the 'Tween' icon.

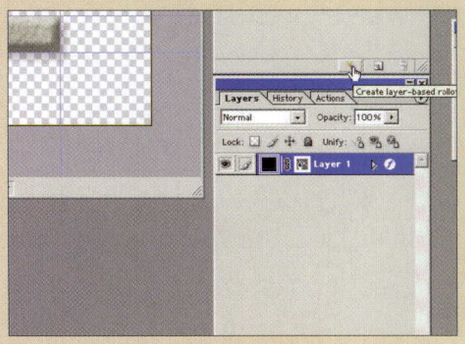


9: Tween dialog

For this initial animation we will keep the default settings in the 'Tween' dialog box except for the number of frames. Increase the 'Frames To Add:' box to '8'. Now click 'OK' for the tween frames to be added to the 'Animation' palette, creating an animation consisting of 10 frames in total.

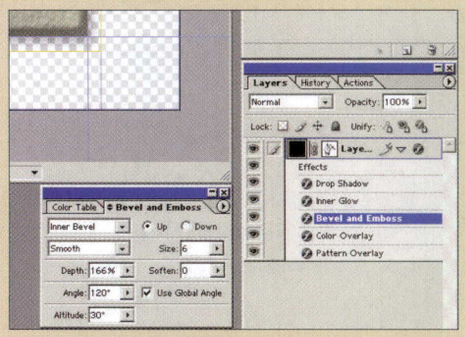
CREATE AN INTERACTIVE INTERFACE

Editing button states



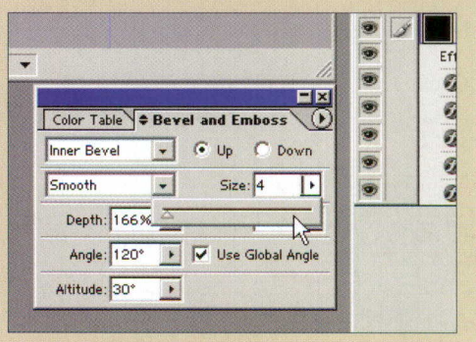
Create new states

It's very easy to edit the various states of a rollover button. When you create a new state for a button, this new state will duplicate the style of the 'Over' state, for example, you can create the rollover effect by adjusting 'Layer Options'.



Bevel and emboss

In the file 'states.psd' there's a simple rollover button with two states: 'Normal' and 'Over'. Select the 'Normal' state in the 'Rollovers' menu then reveal the 'Effects' layers in the 'Layers' menu. Select 'Bevel and Emboss' and you'll see the 'Bevel and Emboss'-specific settings in 'Layer Options' palette.



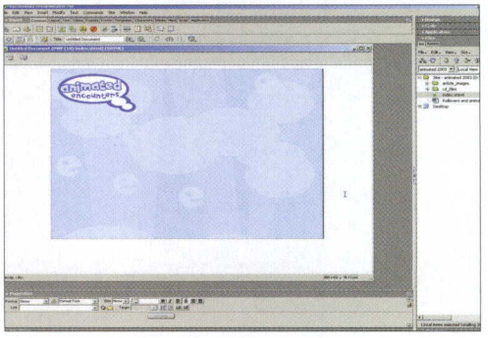
Adjust the styles

Now click the 'Over' state for the button in the 'Rollovers' palette. You can see that the 'Bevel and Emboss' settings are exactly the same as in the 'Normal' state. Adjust the 'Bevel and Emboss' settings to give different styles to the 'Over' state. You can do this with any style in any state.

Continued...

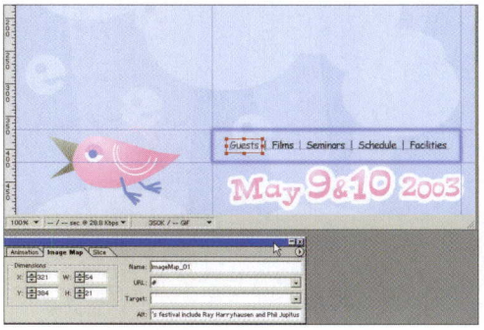
10: Saving the animation

To view the animation in a Web page, it has to be saved as an animated GIF image. Click the 'Animation' palette, 'Options' button and select the 'Optimize Animation' command. Go to the 'File' menu and select 'Save Optimize As...' and save as 'background.gif'.



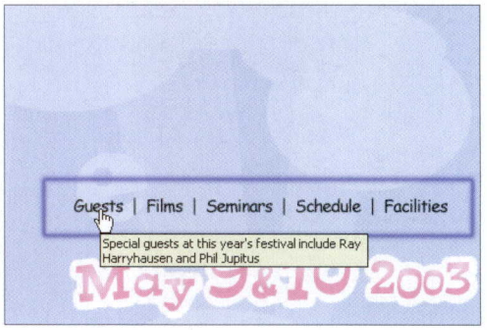
11: On the page

Open your preferred Web page layout package, create a new page and call it 'index.html'. Create a centred table on the page with one row and one column, and make it 700x500 pixels. Add the 'background.gif' image as the background image for the table.



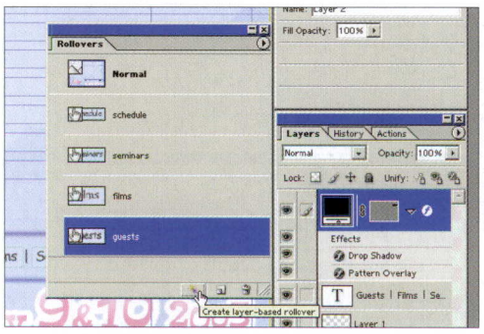
14: Create image maps

Use the 'Text' tool to create the button text in the submenu. Go to the ImageReady toolbar and select the 'Rectangle Image Map' tool. Create image maps around each of the menu items. Use the 'Image Map' palette to add map names, URLs and Alt text.


Guests | Films | Seminars | Schedule | Facilities
Special guests at this year's festival include Ray Harryhausen and Phil Jupitus
May 9&10 2003

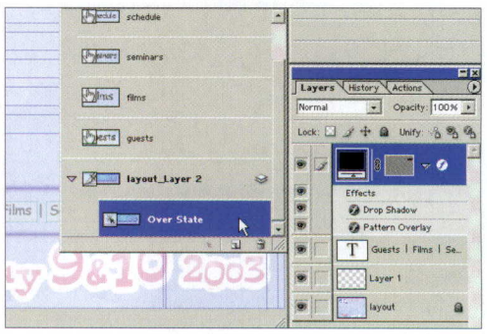
15: Test the maps

Go to the 'Preview' button at the bottom of the main ImageReady toolbar to view the image in your default Web browser. When the image is displayed, information is shown beneath the image and you can use the mouse to test the text image map button you have just created.



18: Create a rollover state

Select the button you have just created in the 'Layer' palette so that it is highlighted, then move to the 'Rollovers' palette. At the bottom of the palette there are three icons. Click on the left icon to create a layer-based rollover. It doesn't matter if anything is selected in the 'Rollovers' palette.



19: A new state

A new entry appears in the 'Rollovers' palette that represents the rollover you have just created. The normal state of the rollover is the top item in the entry, while the 'Over' state appears as the sub-entry beneath it. You can right-click on the 'Over' state to change it to a different state.

Animation elements

It's very important that you keep track of which elements are visible in each frame of animation. In this frame of animation, we are focusing on the second guest's information. So with the second frame selected in the 'Animation' palette and the 'Over' state of the 'Guest' rollover button selected, you can use the 'Layers' palette to specify exactly what is visible in the second frame of the animation by toggling the 'Layer visibility' icons. The information for each frame is stored in the PSD file saved to disk and can be modified at any time. There is also an animation frame assigned to the 'Normal' state of the button – all elements of the animation must be invisible in this frame.

SAYWHAT?

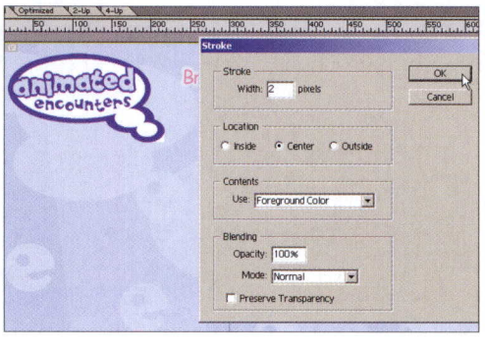
BUTTON STATE

A rollover button can have several different states that may or may not look different when a mouse moves over, clicks on it or is released. Button states include 'Over' when the mouse moves over the button, the 'Down' state which lasts as long as the button is pressed down, the 'Normal' state where nothing is happening and 'Click' which activates an image when the rollover is clicked upon.

Animations in layers

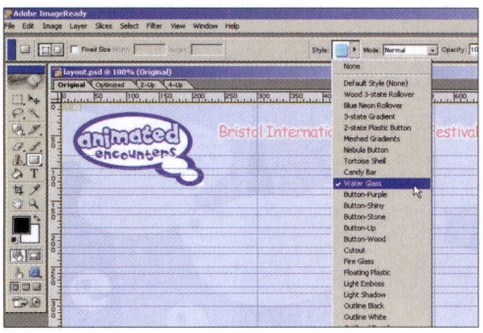
12: Create a new guide

Export the 'background.psd' image in Photoshop and save it as a GIF image named 'layout.gif.' Now open the image. Change the format to 'RGB' using the 'Mode' command in the 'Image' menu. This image now forms the bottom layer for the rest of the interface. Save the image as 'layout.psd'.



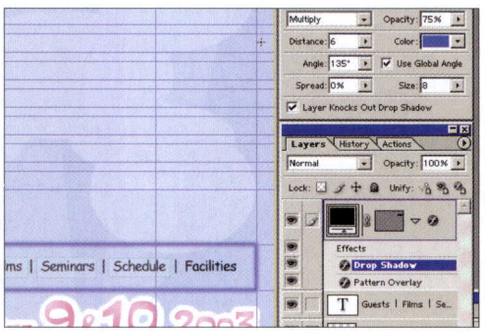
13: Create a submenu

Open 'layout.psd' in ImageReady, create a new layer and then use guides to define an area that will contain a submenu. Use the 'Rectangular Marquee' tool and make a selection. Use the 'Stroke' command in the 'Image' menu to draw a rectangle to contain the menu.



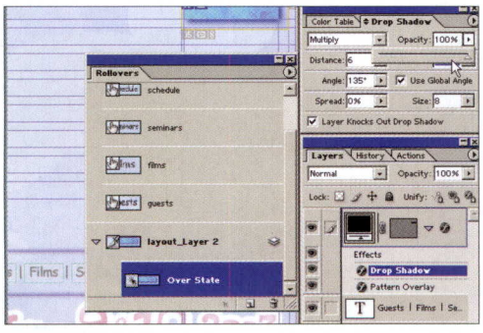
16: Creating rollovers

Create some guides so you can design some rollover buttons for the right-hand side of the interface. The buttons are 100x20 pixels and separated by a gap of 10 pixels. Select the 'Rectangle' tool in the toolbar and then pick a style from the menu; we've picked 'Water Glass' because it's blue.



17: Make the first button

Use the 'Rectangle' tool to create your first button in a navigation row that will run from the top to the bottom of the interface. The button will appear in the 'Layers' palette. If you take a look at the styles applied to the button, you can see that it has a drop shadow – this will change in the rollover.

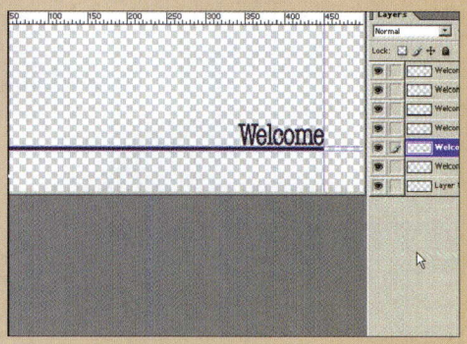


20: Rollover effect

For the rollover effect for these buttons, we are going to increase the opacity of the drop shadow in the 'Over' state. Select the 'Over' state in the 'Rollovers' palette, and now select the 'Drop Shadow' effect in the 'Layers' palette. In the 'Drop Shadow' palette, increase the opacity to '100%'.

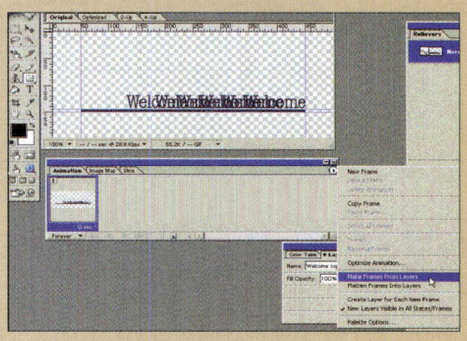
21: Add more buttons

Use the 'Rectangle' tool to add as many more buttons as you require – in this case there are eight. You will have to create the 'Over' state for each button in the same way as we did in the last step. If you want to experiment, try altering other effects in the 'Over' state of the rollover.



Create an animation from layers

You can use the tools in Photoshop to create an animation over a series of layers. This is done by creating an image in a layer then making duplicate layers. For each duplicate layer you can use the cursor keys to change the position of the image. (layer_animation_1.psd on the CD).



Separate the frames

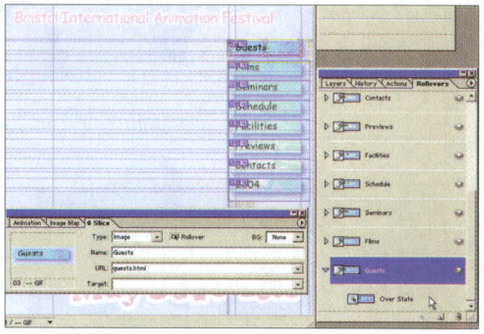
Save the image in Photoshop then open the image in ImageReady. It appears exactly the same, with all layers present. In the 'Animation' palette, open 'Options' and pick 'Make Frames from Layers'. This converts each frame in the original PSD image into a separate frame in the animation.

Manipulate the frames

Now the layers have been converted to frames, you can manipulate them as usual by setting the duration of each frame and how many times the animations loop. Note the original layers still exist in the PSD file and can be edited. Check out 'layer_animation_2.psd' on the CD to see results.

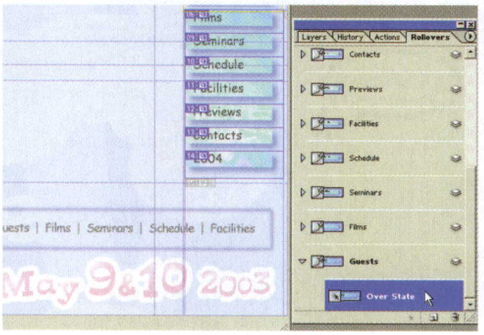
CREATE AN INTERACTIVE INTERFACE

Continued...



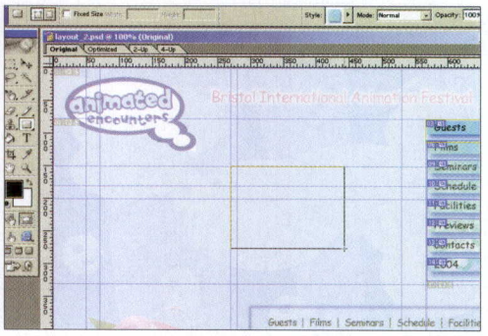
22: Adding URLs

Use the 'Text' tool to add text to each button. The rollover buttons have to link to somewhere, so click on a rollover in its 'Normal' state and go to the 'Slice' palette. In the URL field type in the name of the Web page the button connects to and repeat for all of the buttons.



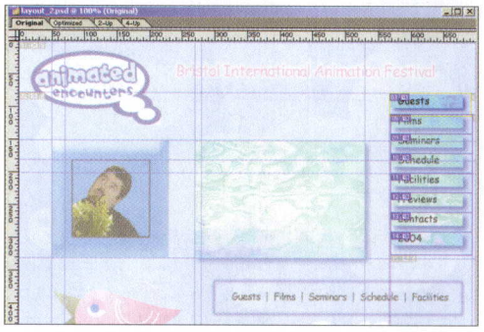
23: Animation rollovers

We want to display guest images and two mini biographies that will appear and animate when the mouse hovers over the 'Guests' rollover button. In the 'Rollovers' palette, click on the 'Over' state of the 'Guests' rollover.



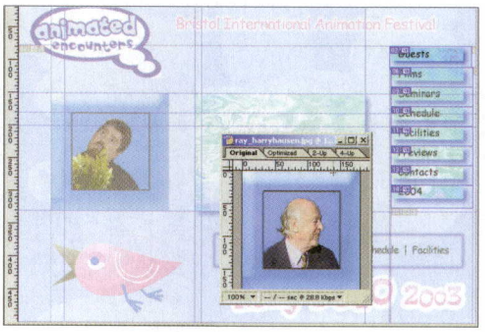
24: Laying it out

The animations will cause the images of the guests to appear on the left and the mini-biographies in the centre. Use guides to create a framework so the images and text areas will line up. Select the 'Rectangle' tool and create a background rectangle that the text will be displayed against.



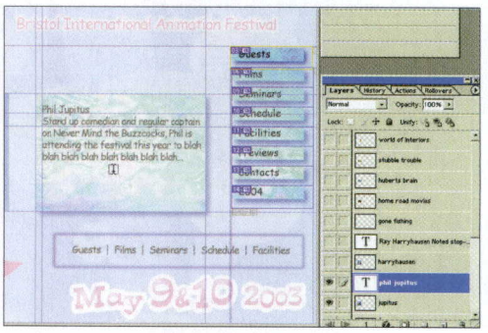
25: Add the images

After creating the text frame, open the images 'phil_jupitus.jpg' and 'ray_harryhausen.jpg' in ImageReady. We're going to make Phil Jupitus appear in the first frame of the animation, so drag and drop his JPEG image onto the layout and position it so the top edge lines up with the top of the text.



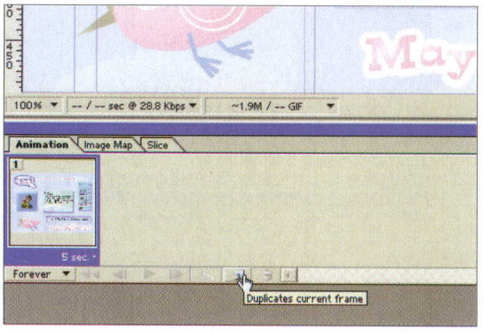
26: Add more images

Drag the 'Harryhausen' JPEG onto the layout, position it over the 'Jupitus' image and make it invisible in the 'Layer' palette. You can also add these images for later use; 'gone_fishin.jpg', 'home_road_movies.jpg', 'huberts_brain.jpg', 'stubble_trouble.jpg' and 'world_of_interiors.jpg'.



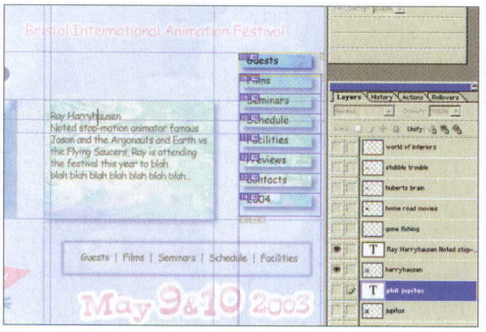
27: Add the biography

With the 'Over' state of the 'Guests' rollover selected, choose the 'Text' tool and create a block of text over the background. In the 'Layers' palette, right-click on the text layer you have just created and duplicate it. Make the duplicate layer invisible and move it above the 'Harryhausen' image in the palette.



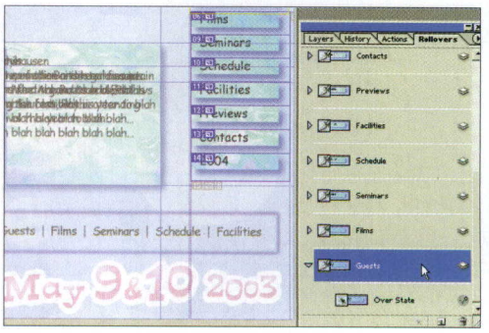
28: The second frame

In the 'Animation' palette, click on the 'Duration' drop-down at the bottom of the frame and select '5.0 seconds' – this will give those viewing the animation time to read the text. Now go to the 'Duplicate Current Frame' icon and click on it to add a new frame to the animation.



29: Edit the second frame

With the 'Over' state of the 'Guests' button selected, click the second frame in the 'Animation' palette. Switch to the 'Layers' palette, make the Phil Jupitus image and text layers invisible, and do the same for Ray Harryhausen. Edit the Harryhausen text layer as required and save the file.



30: Back to normality

Switch back to the 'Rollovers' palette and select the 'Normal' state of the 'Guests' button. You will note that there is an animation frame in the 'Animation' palette. Switch to the 'Layers' palette and make sure that the images and text you have just created are set to 'Invisible' for the 'Normal' state.

SAYWHAT?

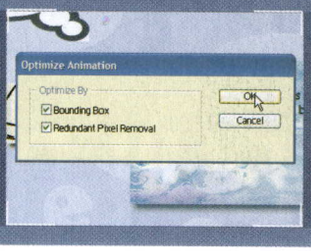
SLICES
When you create an image or animation in ImageReady it can be any size you wish. To reduce download times, ImageReady automatically chops the image up into sections called 'slices' and applies different levels of optimisation to various slices. When you save a sliced ImageReady picture, the program creates an HTML page containing all of the code required to reassemble the image as it was originally designed.

TWEENS
When creating an animation in ImageReady you can create two frames as the start and end points. Using a technique called 'Tweens', ImageReady inserts a series of frames between them that show intermediate stages of the Web animation.

CREATIVEPRIMER

Reduce the size

If you're saving animations as GIFs, it's good to optimise them to reduce file size. When saving an optimised animation, hit 'Bounding Box' to crop frames to the area that has changed, and 'Redundant Pixel Removal' to make unchanged pixels from the previous frame transparent in the next.

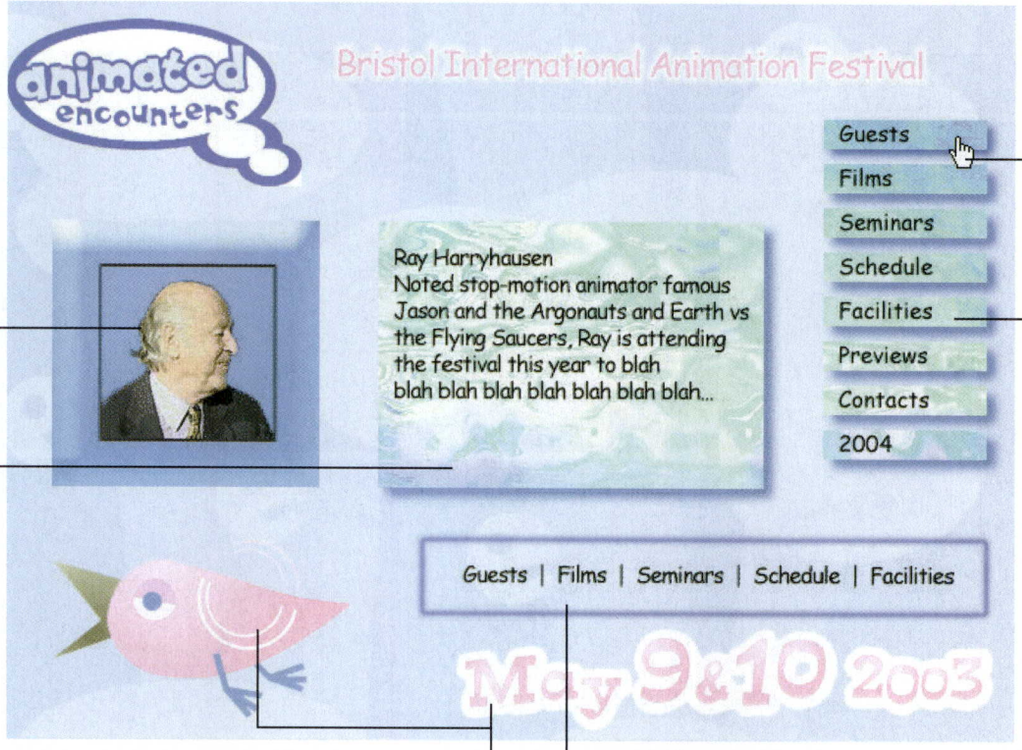


It's a rollover

Here's our finished interactive interface in all its glory...

Image and text
The image and text displayed here change depending on which rollover button the mouse is over

Remote control
These rollover buttons trigger animations elsewhere on the interface when the mouse is over them

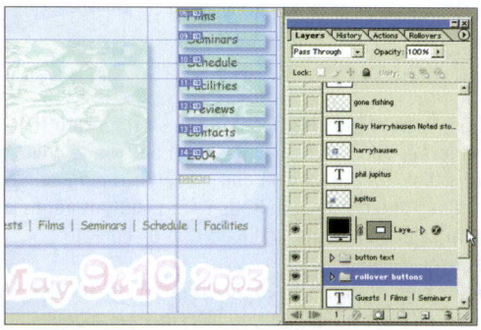

animated encounters
Bristol International Animation Festival
Guests
Films
Seminars
Schedule
Facilities
Previews
Contacts
2004
Ray Harryhausen
Noted stop-motion animator famous Jason and the Argonauts and Earth vs the Flying Saucers, Ray is attending the festival this year to blah blah blah blah blah blah blah...
Guests | Films | Seminars | Schedule | Facilities
May 9&10 2003

States
The same rollover buttons have their own built-in animations called 'states' that change when the mouse moves over them

Text box
The box that the text floats over is a constant part of the animation controlled by the rollover buttons

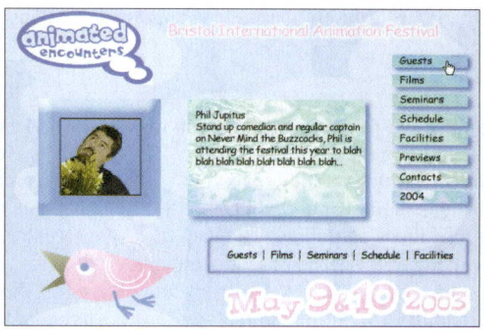
Background
The bird and the date are animated elements in the animated GIF that act as a background to the interface

Tooltips
Each button in this submenu bar displays a Windows-style tooltip when the mouse is over it



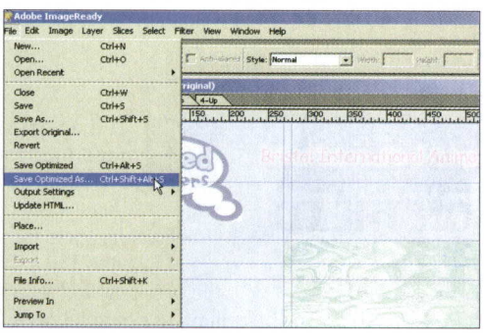
31: Add more animations

You have already added five more images to be attached to the 'Films' rollover button. Create text blocks for each film in the 'Layers' menu. Now select the 'Over' state of the 'Films' rollover button in the 'Rollovers' palette and repeat the animation process for the 'Guests' button.



32: Preview

Save the file to your hard drive and now click on the 'Preview in Browser' button at the bottom of the 'Tools' palette. The image and animation will appear in your Web browser and you can check that the animations and rollovers work. All the work at this stage is in the 'layout_2.psd' file on the CD.



33: Export for the Web

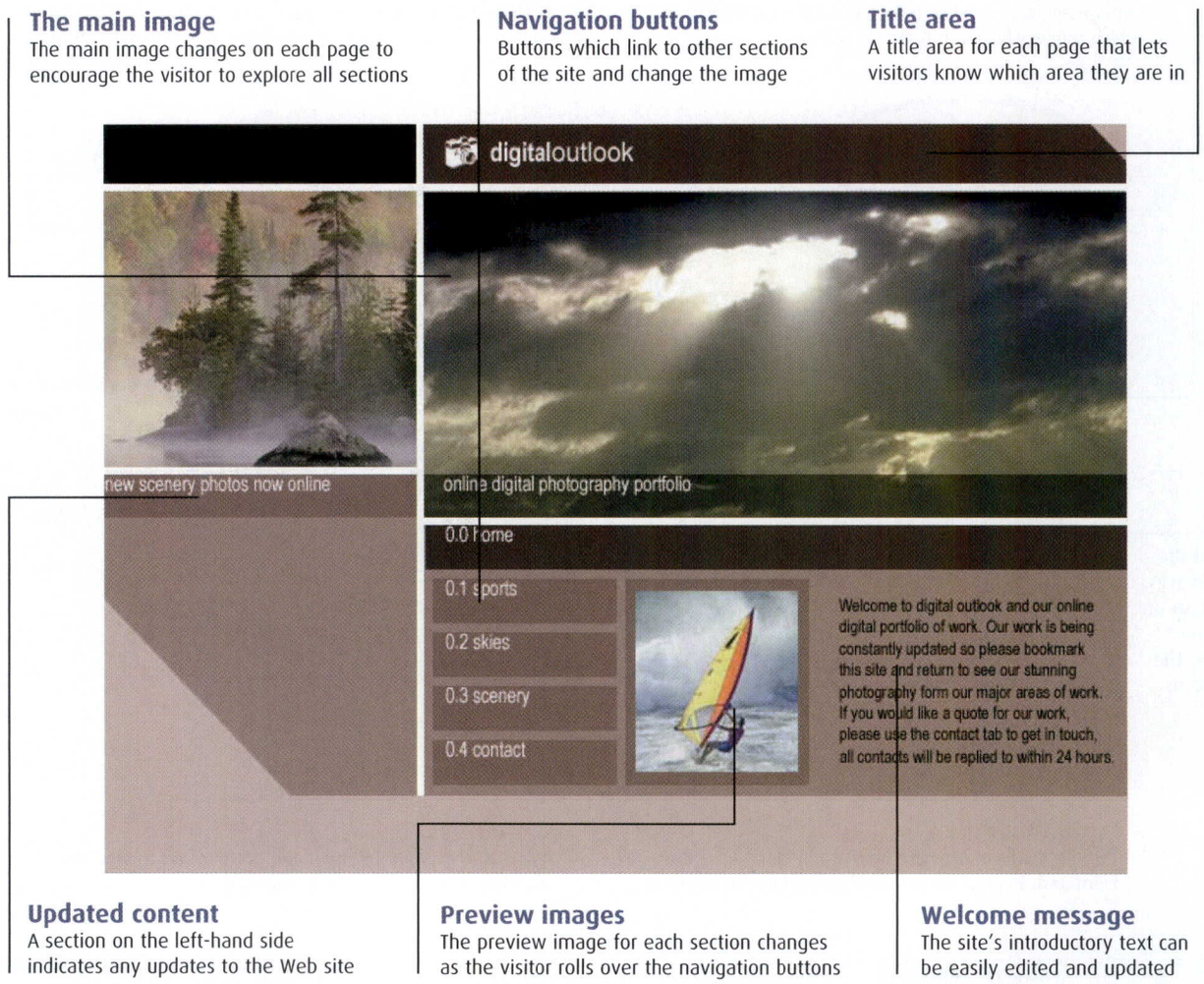
Go to the 'File' menu, select the 'Save Optimized As...' command and save the files to disk. This file has been saved as 'layout_2.html'. You can see how we've integrated this HTML with the background image in 'index_2.html' on the CD.

[[writer: Mark Shufflebottom | hardware: Apple iBook G3 | software: ImageReady 7.0]

BUILD A PORTFOLIO WEB SITE

Here's what we're going to be creating...

A quick look at the essential elements that will make up our portfolio Web site


The main image
The main image changes on each page to encourage the visitor to explore all sections
Navigation buttons
Buttons which link to other sections of the site and change the image
Title area
A title area for each page that lets visitors know which area they are in
digitaloutlook
new scenery photos now online
online digital photography portfolio
0.0 home
0.1 sports
0.2 skies
0.3 scenery
0.4 contact
Welcome to digital outlook and our online digital portfolio of work. Our work is being constantly updated so please bookmark this site and return to see our stunning photography form our major areas of work. If you would like a quote for our work, please use the contact tab to get in touch, all contacts will be replied to within 24 hours.
Updated content
A section on the left-hand side indicates any updates to the Web site
Preview images
The preview image for each section changes as the visitor rolls over the navigation buttons
Welcome message
The site's introductory text can be easily edited and updated

ON THE CD

All of the files you need to follow this project can be found on the CD, along with the finished HTML output

Over the next six pages, we're going to show you how to use the features in ImageReady to design a portfolio Web site from which to showcase your wares. Without touching a single line of HTML, we'll create a striking online presence for a fictitious photography agency.

Because this tutorial uses many of the techniques described in the previous workshop, we'll be assuming that you already know how to create rollovers and add URLs to buttons so that we can concentrate instead on the different techniques involved. If you need a refresher, just return to the previous tutorial where you can find out exactly how it's done.

This tutorial focuses on actually building and assembling Web pages, starting with a template made up of guides and then filling in the relevant areas with content until it is completed. We've kept the design of our site clean and fresh to ensure that it's easy for visitors to read and navigate. Our home page will contain rollovers that turn images on and off rather than just changing the colour of a button, while the site's content pages will allow you to select an image and load it in a separate browser window.

This method of Web design is a real breath of fresh air. The freedom to place graphics wherever you like on a page and create rollovers exactly where you want them is a far cry from traditional forms of site creation, which require DHTML layers. Unfortunately these have a habit of going wrong from platform to platform and browser to browser, ruining your hard work.

Hopefully this workshop will show just why ImageReady is one of the most sophisticated Web design tools on your hard drive. ■

CREATIVEPRIMER

Rollover buttons

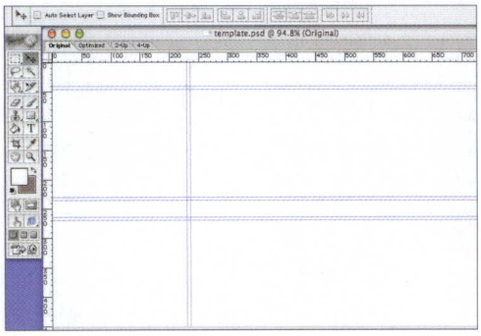
The index page of this Web site features rollover buttons that instead of changing themselves to a different colour or shade, change an image on the page to give a preview of what you'll find there. This is done using the JavaScript that is generated by ImageReady, which tells the browser to change the appropriate slice on rollover rather than change its own slice. This is a very handy but criminally underused Web technique that can add interest to any Web page.

YOURGUIDE

MARK SHUFFLEBOTTOM is a regular contributor to a variety of creative magazines, including *Digital Creative Arts*, *Practical Web Projects* and of course, *DCA SE*. When he's not writing, you'll find Mark teaching on the BA (Hons.) Interactive Media course at Bournemouth University. You can view an online portfolio of his work at **www.markjsb.co.uk**

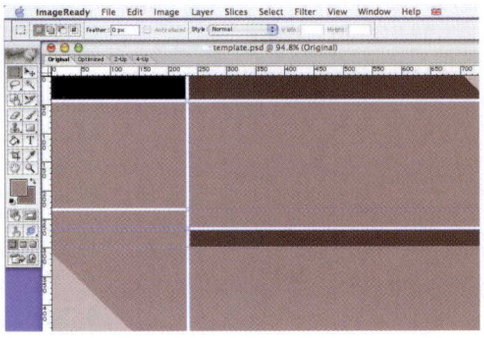
Step-by-step: create a Web site with ImageReady

We take you through the whole process of assembling Web pages, from using the template guides to filling the pages with content



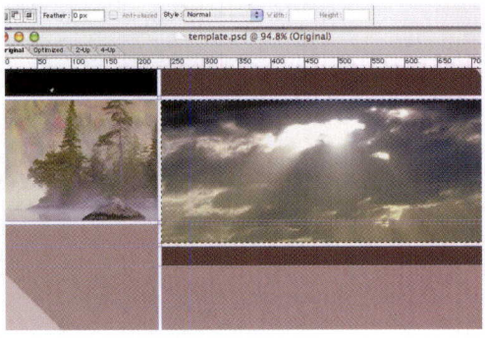
1: Open up

After starting ImageReady, open the 'template.psd' file from the cover CD. As you will see, guides have been placed on the image, which will form the basis of our design. We are going to fill these sections with areas of colour to get a background for the basis of the site.



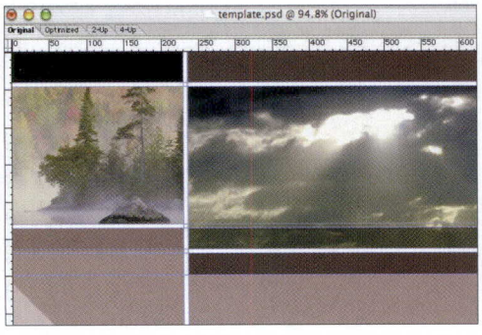
2: Can you fill me in?

Using the 'Marquee' tool, select areas of the guides as above and fill them with colour; you can choose your own colour scheme or follow ours. The diagonal areas are produced by filling an area on a new layer and rotating it 45 degrees in the 'Edit', 'Transform' menu.



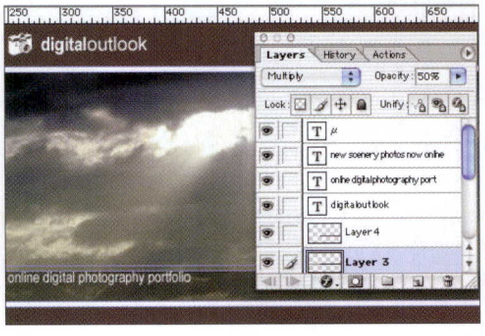
3: Add some photography

From the cover CD, open 'darkskies.psd' and drag it onto the 'template' document. Scale the image down, position it as shown above and then trim the picture to fit the space. For a more detailed explanation of how to do this, see the boxout on page 86.



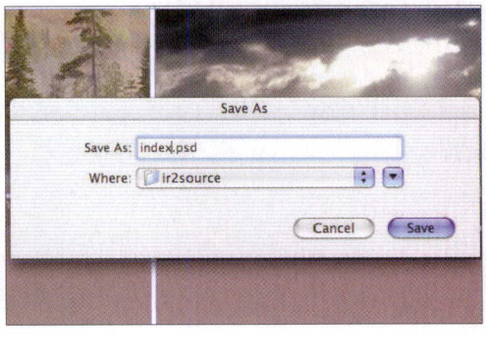
4: More photography

Add 'scenery3.jpg' from the cover CD and repeat the last step. Now add two coloured bars to the areas as shown above. The dark, semi-transparent area over the photograph is a black area with the blending mode changed to 'Multiply' and the opacity reduced to '50%'.



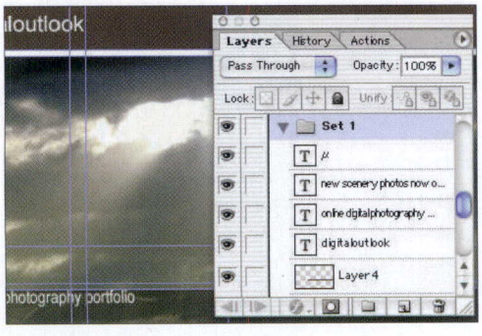
5: Titles

Now add some text to the document as shown above. We've chosen an Arial Narrow font. Notice how a blend of different weights has been used on the main title – this is a classic design skill. The camera is one of the Webding font characters.



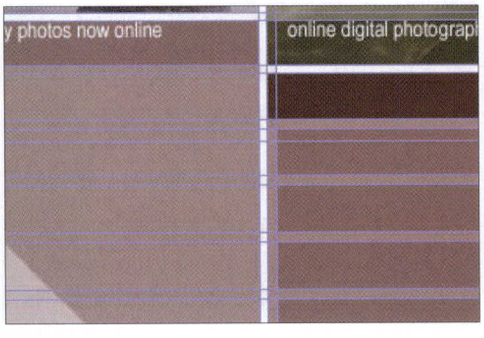
6: Save as

At this stage it's a good idea to save your work, so let's do a 'Save as' and save the document as 'index.psd'. By default, this will generate an HTML page called 'index.html' when we output later and all our images will be labelled 'index(slice).jpg'.



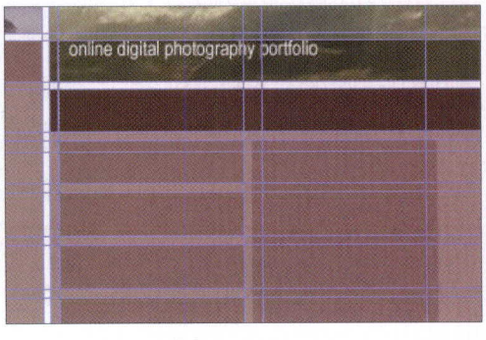
7: Return to the fold

Add a folder to your layers by clicking on the 'Folder' icon in the bottom of the 'Layers' palette and drag each of your layers into the folder one at a time. This will help us keep everything neat and tidy, as these are the common items found on each of our pages.



8: New layer

Add a new layer and create four oblong boxes under the main photograph section, using guides to mark out the area. Select each one in turn using the 'Marquee' tool and fill the area with a colour using the 'Paint Bucket' tool. You should end up with four buttons as above.

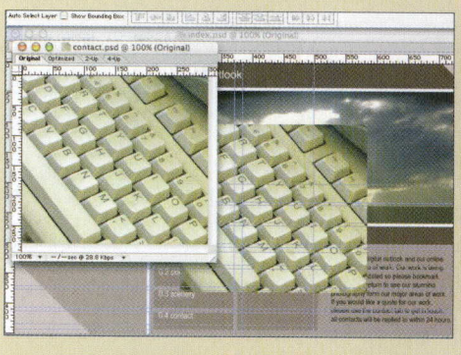


9: Copy the layer

Copy the last layer you created and move it to the right-hand side. Zoom in using 'Ctrl' and '+', then select around it with the 'Marquee' tool. Using the same colour, fill the in-between sections using the Paint Bucket. Drag some guides about five pixels inside each edge.

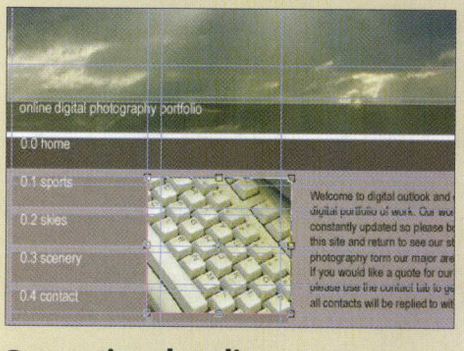
BUILD A PORTFOLIO WEB SITE

Scaling and trimming



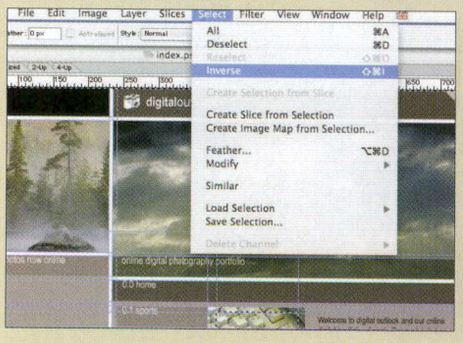
Adding images

In this tutorial a lot of photography is brought in from different sources to build the site. To get the images in the right place and at the right size, they've been scaled and trimmed. When you've dragged images across, position them onscreen so you can see the majority of the image.



Proportional scaling

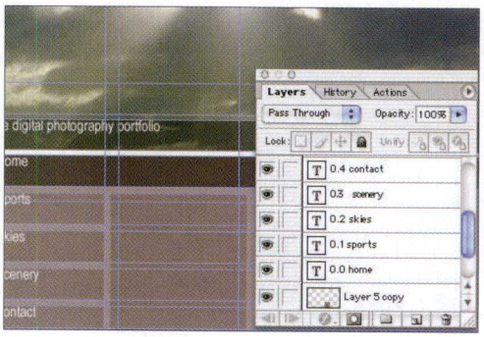
To scale an image, go to the 'Edit' menu and hit 'Transform and scale'. A bounding box will surround the image. Click one of the corner handles and hold down 'Shift' to scale proportionally, keeping the dimensions. To scale around the centre, hold down 'Shift+Alt' while dragging the corner.



Trimming edges

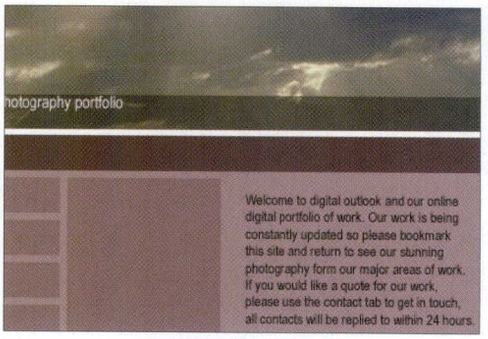
Because you want the image to retain proportions, you will find it doesn't fit exactly into the space you want it to. Use the 'Marquee' tool to select the area you want it to fit into from the guides. In the 'Select' menu, pick 'Select inverse' and hit 'Delete' on the keyboard. The image should now fit!

Continued...



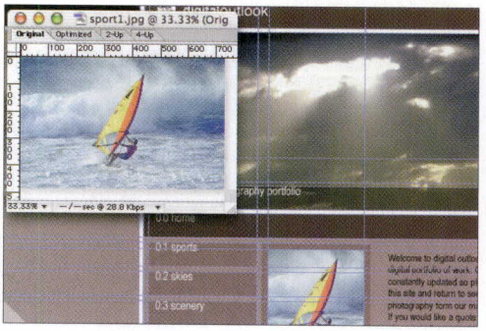
10: Button headings

Add some more text now, one for each of the buttons and a page title. It's always important to have a page title as well as a Web site title because this aids navigation. We are using an Arial Narrow font and positioning the button text to the top-left side because this looks more stylised.


Welcome to digital outlook and our online digital portfolio of work. Our work is being constantly updated so please bookmark this site and return to see our stunning photography form our major areas of work. If you would like a quote for our work, please use the contact tab to get in touch, all contacts will be replied to within 24 hours.

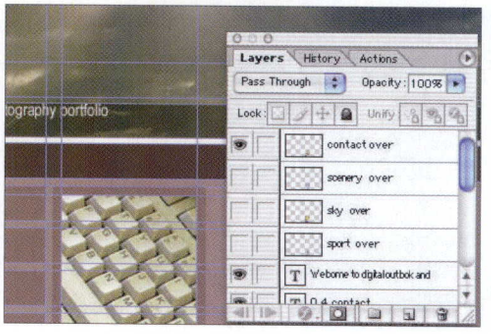
11: Welcome text

It's always a good idea to have some kind of welcoming message for your visitors on your home page, so use the 'Text' tool to add some text to the space that's available in the bottom right-hand side of the screen design. You can copy our text or make up your own message.



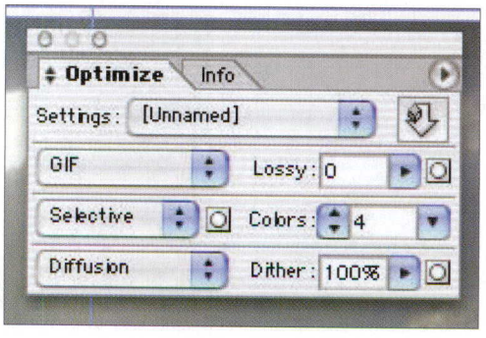
12: Catch the surf

Open 'sport1.jpg' from the cover CD and drag the windsurfer to the index document. Resize it using the 'Scale' tool from the 'Edit', 'Transform' menu. Select the outside edge of the guides using the 'Marquee' tool and in the 'Select' menu pick 'Inverse' to get the outer edge. Press 'Delete' to trim it down.



13: Rename the layer

Rename the layer 'sport over' by double-clicking the name on the 'Layers' palette, then turn the visibility of that layer off. Repeat the process with the files 'sky4.jpg', 'scenery4.jpg' and 'contact.psd'. Each time, scale and trim to fit the area. Name the layers as shown and turn the visibility of each layer off.



14: Optimise the settings

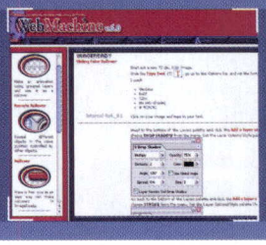
Change the 'Optimize' settings to the ones shown above to set the default settings. After you've done this, use the 'Slice' tool to start cutting up each area of the image as defined by the guides. If you're not sure which areas should be cut up, refer to the finished version of 'index.psd' on the CD.

15: Slice Select

Using the 'Slice Select' tool, select the 'Sport' button and in the 'Rollover' palette, add a rollover state. With this state selected, turn on the 'sport over' layer and add a URL 'sports.html' in the 'Slice' palette. Repeat the process with each of the buttons, turning on the 'Over' state and adding an appropriate URL.

WEBRESOURCES

www.thewebmachine.com
This is an excellent resource, with a good clean design and a wealth of in-depth tutorials for each of Adobe's key Web design products. You'll find some superb tutorials for ImageReady and Photoshop here.



http://user.fundy.net/morris/redirect.html?photoshop.shtml
GFX is a superb site with plenty of great tutorials for ImageReady. It's well laid out and easy to navigate, with some excellent downloads, including Actions for further enhancing ImageReady.

SAYWHAT?

OPTIMIZE PREVIEW
The 'Optimize Preview' button is found on the toolbar which should display the icon of the relevant Web browser. Click on it at any time in order to see how the image will look in your browser. This is very handy, as it enables you to check that the rollovers are working correctly and that the images are optimised sufficiently.

Find your way around the ImageReady interface

Use this handy guide to familiarise yourself with ImageReady's key tools

The Optimize palette

One of the keys to creating a fast-loading Web site is to ensure that your images are correctly optimised for use online. The 'Optimize' palette lets you select the compression settings for your image. What's more, you can save these palette settings for use on single images or batches of images by creating a droplet for the settings. When optimising images for the Web, you can now keep vector art and text crisp by letting ImageReady automatically assign a higher priority to those areas.

Color Table palette

One surefire way of reducing image sizes for use on the Web is to reduce the number of colours used in it. The 'Color Table' now gives you more control over the colours in optimised GIF and PNG-8 images, allowing you to add and delete colours, or to shift particular colours to other colours or to transparency.

The Rollovers palette

Adding nifty rollover effects is easy, thanks to the inclusion of this new palette. The menu allows you to create, view and set options for the rollover states in an image. By default, every image is set to 'Normal' state and this is how it will look when first loaded into a Web page. Adding extra states is straightforward with ImageReady, and is merely a case of clicking the 'Create Rollover State' icon and changing the image to be displayed upon a mouse rollover.

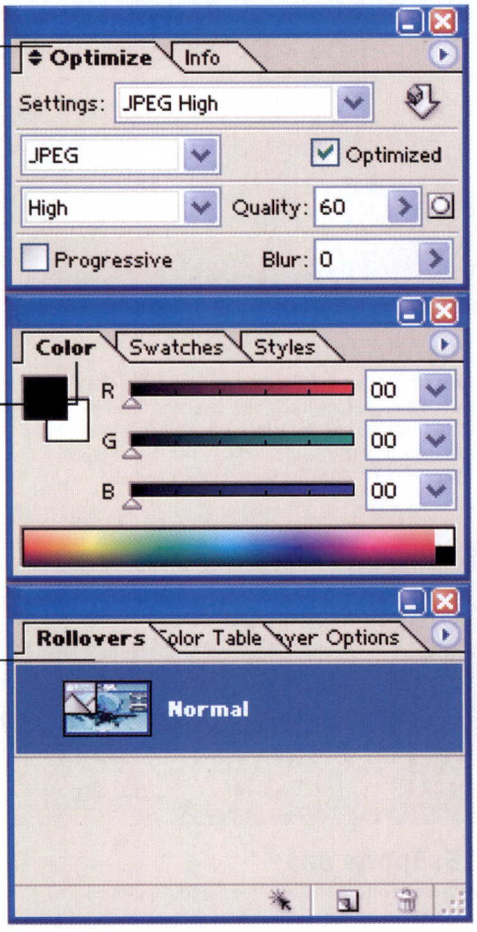


Image Map tools

1. Rectangle Image Map tool
2. Circle Image Map tool
3. Polygon Image Map tool
4. Image Map selection tool

Slices Visibility

This tool gives you the ability to display or mask any slices that are set up on your image

Preview Document

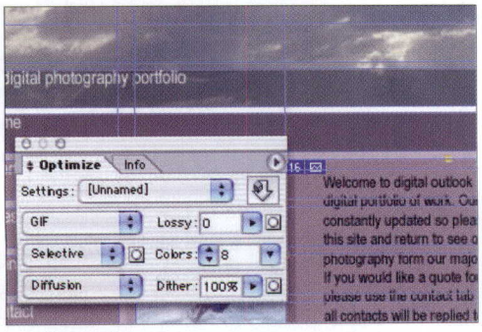
Pressing this button allows you to view how a template will look once it's been rendered using different sets of data

Preview in Default Browser

Ideal for checking that your image won't take an age to load, this button lets you preview work in your browser

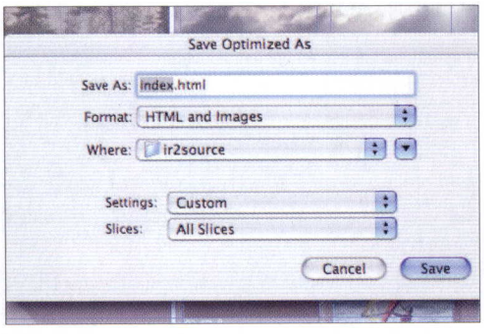
Image Maps Visibility

Allows you to show or hide image map areas contained within your picture



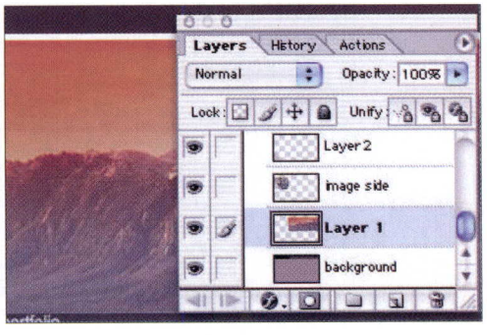
16: Optimise individual slices

Now select each slice and optimise each one, checking the results in the 'Optimize' preview. We want all the flat coloured areas as GIFs with as few colours as possible. The photographic slices need to be set as JPEG images. When you have done this, hit the 'Browser Preview' in the toolbar.



17: Export the image

If you're happy with the way your page is working in the preview, go to the 'File' menu and select 'Save Optimized As'. Make sure you export HTML and text and choose a suitable location for the published destination of your work. This concludes building and exporting the home page.

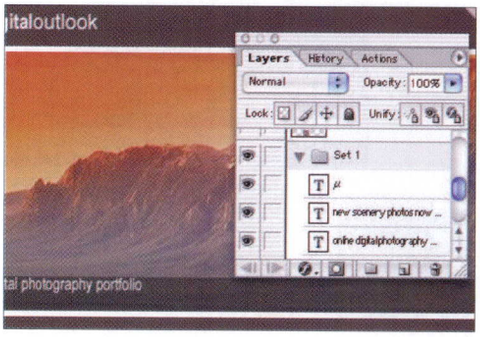


18: Save As

Save your 'index.psd' then do a 'Save As' and call the new document 'sports.psd'. The first thing to do is replace the main image, which is found in the 'set 1' folder. Delete that layer and replace it with 'scenery1.jpg' from the cover CD, scaling and trimming the image to fit into the available shape.

BUILD A PORTFOLIO WEB SITE

Continued...

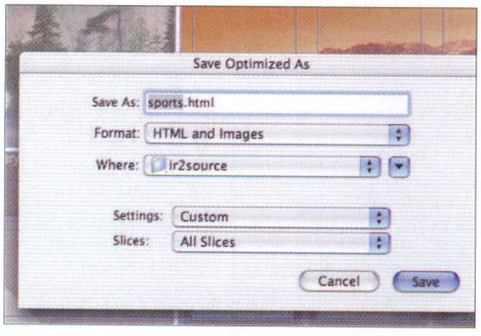


19: Remove slices

We need to remove the slices at the bottom of the screen and the appropriate layers that go with them. Click the 'Slice Select' tool, select the buttons and hit 'Delete'. Do the same with the rollover area and the welcome text. Delete those layers so that your image resembles the screenshot above .

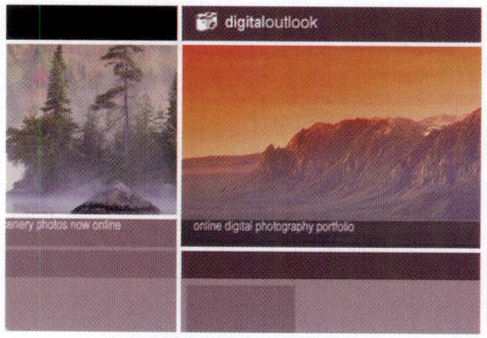
24: Copy text layers

Copy the text layer for the home text you've just created and change the text colour to black. Now do the same for the four image titles. After you've changed the titles, turn off the visibility of all the black text layers so the original white ones are showing – we'll turn the others on after slicing the image.



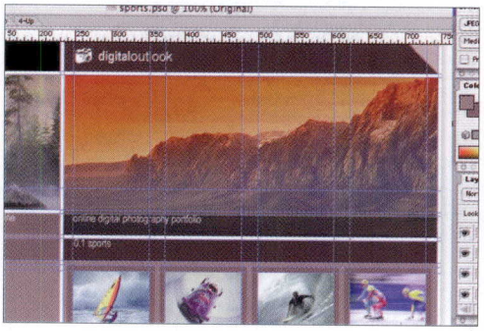
29: Output ready for the Web

Once you have previewed the images and the rollovers are checked, the image can be saved, so press 'Ctrl+S'. Now select 'Save Optimized As' from the 'File' menu. In here, save to the same location as you did with the index file. Call your image 'sports.html' to tie up with the link from the index page.



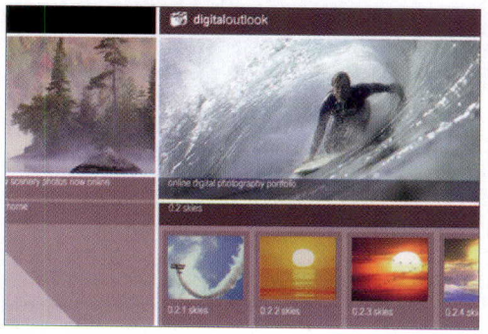
20: Add content areas

Copy the bar that is under the side image by locating the layer it is on, pasting it to a new layer and moving it under the first bar. Now create a box under the main image by creating a new layer and selecting a rectangle with the 'Marquee' tool. Fill it with the appropriate colour.



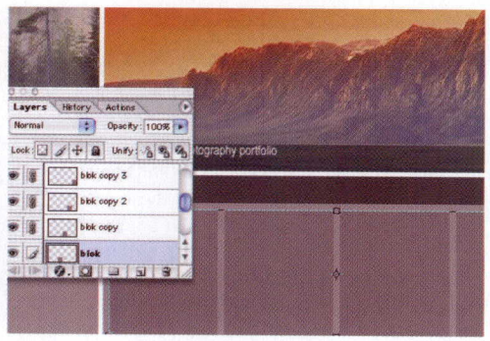
25: Sports day

Now it's time to open the images 'sports1.jpg' through to 'sport4.jpg' from the cover CD. Drag them on in the right order and resize using 'Scale' from the 'Edit', 'Transform' menu. Position as shown and trim any excess by selecting the square with the 'Marquee' tool, via 'Select', 'Inverse' and 'Delete'.



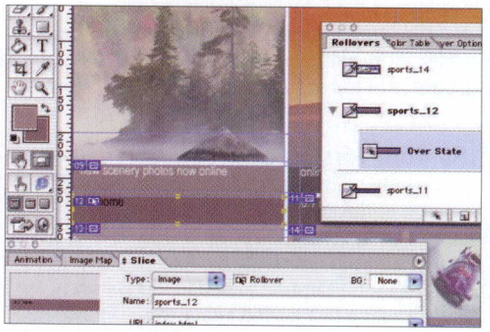
30: Skies page

Choose 'Save As' from the 'File' menu and save the file as 'skies.psd'. Now change the pictures and text, keeping all other formatting the same on the page. You will need to bring in the four 'sky.jpg' images from the CD. Arrange the page as shown in the screenshot.



21 Copy the box

You now need to copy the layer with the box three times so that your four boxes fill the content area under the main image. If they don't fit, you'll have to lock the layers together so that when you scale them they will all scale equally. You can then adjust them until they fit perfectly into the space.



26: Home please

Slice up the image according to your guides as you did previously with the index page, then select the slice for the home button using the 'Slice Select' tool. Add a rollover for it, turn on the black layer of the text and turn off the white layer. Add the URL 'index.html' to the 'Slice' palette.

31: Correct rollovers

Once you have the new images in place and you've changed the text for the relevant places, the rollovers will not work properly. For more information on correcting this, see the boxout on the opposite page. You will also need to update the links to the new JPEG images.

SAYWHAT?

SLICE SELECT TOOL
This tool is found by clicking and holding on the 'Slice' tool. Instead of slicing the image up, this tool selects the individual slices so that you can apply rollovers, add URLs and optimise each of the slices.

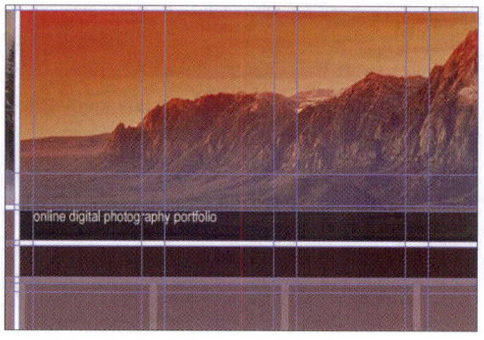
TRIM
This is when you remove excess parts of an image that don't fit into the space allocated. You should never stretch an image to fit a space, because this can look very unprofessional.

LAYERS FOLDER
This is a folder added to the 'Layers' palette to store layers. By clicking the arrow on the layer, you can hide the layers inside the folder, which keeps your 'Layers' palette easier to manage and work with.

CREATIVEPRIMER

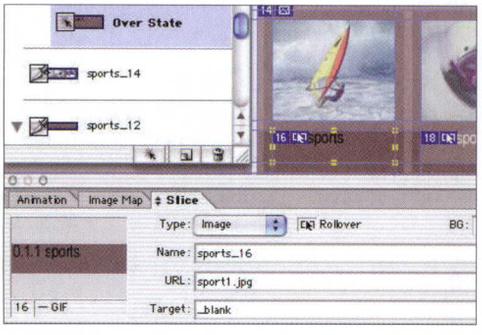
Working with slices

In order to create interactive We sites with rollover elements Web designers need to use slices. Slices ensure that only the parts of a Web site that actually need to change change, saving visitors masses of bandwidth because they don't have to download the whole page every time they click on a link. You can apply different levels of compression to your slices and optimise each slice to load in a different way, giving you maximum control over your design.



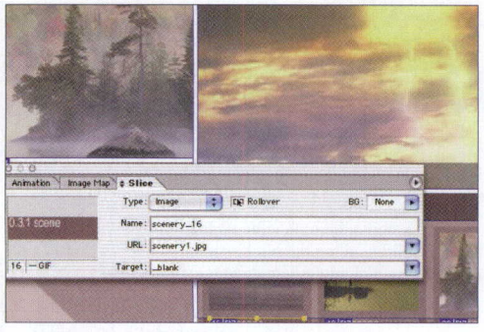
22: Rearrange the guides

Go to the 'View' menu and choose 'Show and Select Guides'. Rearrange the guides so that they resemble the above screenshot. We are going to put an image into the top box that's been created by the guides and create some rollover text in the bottom section to act as buttons.



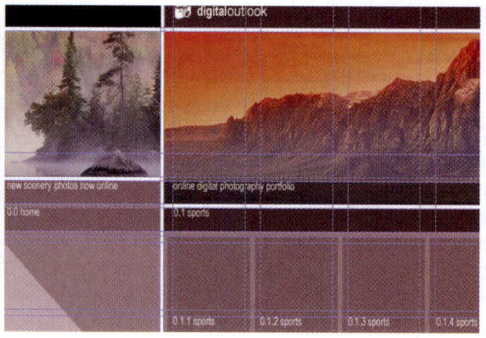
27: Link up the buttons

Select the slice with the title for the first button, then create a rollover in the 'Rollover' palette. With the rollover selected, turn off the white layer text and turn on the black layer. Now add the URL as shown above, with the Target set to '_blank'. Repeat this process for each of the image titles.



32: Scenery page

Save the optimised files out after checking in the Preview window. Make sure you save them to the same location as your other pages. Repeat the last two steps for the 'Scenery' page and then save these optimised files to complete the workshop.



23: Create new text

Now we need to add some new text to the document – simply copy in all the above text. We've added a home area on the left-hand side, along with a page title and four photo titles that will eventually act as rollover buttons. Once again, we've used the Arial Narrow font to keep consistency across the design.

28: Optimise the slices

Again, select each of the new slices and optimise them so that for flat areas you're using a GIF with as few colours as possible. For the photos, use JPEG. Always check how the compression looks in the 'Optimized Preview', then check in a browser to make sure it's working by clicking 'Browser Preview'.

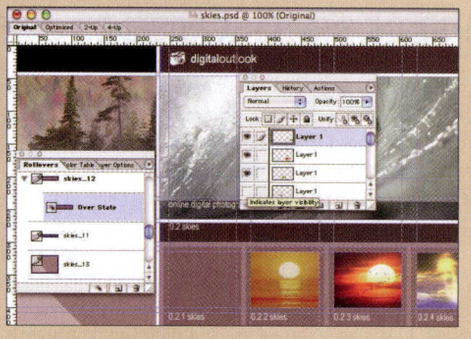
33: Ready for the Web

Here's our finished Web site in all its glory. Before uploading, test your pages carefully in as many different Web browsers and on as many different platforms as you can and then upload to your Web space with a FTP client.

Updating rollovers

Missing images

When you create the 'Skies' pages you'll use the previous 'Sports' page as a template. Because they're so close, it's pointless to start again. When you replace the images, the rollovers will show all the images missing, because they weren't there when the rollover state was created.



Restoring the images

It is very easy to correct this small problem, but it takes a little time because there's no shortcut. Select one of your rollovers in the 'Rollover' palette. Look to see which images are missing, then go down to the 'Layers' palette and turn the 'Visibility' eye icon on for each image that's missing.

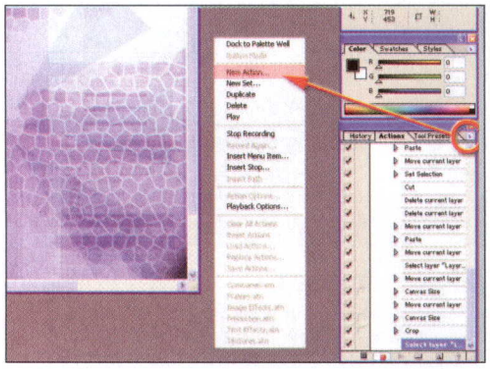
Restoring links

You'll need to do the above step with all the rollover states of each button – it takes a little time, but the results are worth it. Once you've done that you'll need to select each button and change the URL in the 'Slice' palette to the correct new link. Your update is now complete.

KNOWLEDGE BASE:

EXPERT ANSWERS TO YOUR QUESTIONS

DON'T DESPAIR WHEN PHOTOSHOP PROBLEMS STRIKE – CONSULT THE ADVICE OF OUR EXPERTS AND SPEND MORE TIME CREATING GRAPHICS THAN CRYING ABOUT THEM...



Click on the 'Options' icon on the right, select 'New Action' and give it an easily recognisable name, relevant to its function

AUTOMATIC FOR THE PEOPLE

Q I work with a lot of files simultaneously in Photoshop and sometimes need to perform the same tasks over and over again, and it takes me forever. I've heard there are ways to automate certain functions, but I'm new to digital imagery. Have you got any tips?

Timothy Bradshaw

A No problem. Photoshop and a number of other top image-editing packages have ways of carrying out multiple functions on an image and then storing these so you can use them on other images. Photoshop uses a method called 'Actions', and this is one of the default palettes opened when you launch the software, stacked with the 'History' palette. It all looks a bit messy and uninviting, but when you click the small 'Options' icon (circled in the screenshot) you have the option of creating a new action. Do this and name it relative to what you want to do (so you know what the action does when you need to re-use it). You'll see a red button appear. This means you're recording what you do onscreen – so paint, add an effect, optimise, close a window and so on, and then click the square 'Stop' button next to the 'Record' button. You now have a stored set of functions. Click the first step of the action you just created, go to a new image, press 'Play' – and all the steps will be re-enacted, saving you bags of time.

TAKE OFF THE MASK

Q I'm just getting used to Photoshop but find it hard to make masks and remove items from their backgrounds. The bits I have real problems with are fine items like hair or areas that have transparency. Are there ways of making these things a bit easier?

Trevor Boardman

A There are – but not in Photoshop. Photoshop is great for cutting out items, but it can be very time-consuming and you need to be at quite a high level to use 'Quick Mask' mode and the 'High-pass' filter. A better and more consistent bet is using the excellent Corel Knockout software, which has been specifically designed to take the pain out of separating foreground and background elements. It is particularly clever when it comes to areas with transparency, like glass, which may have unwanted or distorted elements in the background, and it separates them automatically with no brain-wear required! The latest version, Corel KnockOut 2.0, has also had a massive price reduction and a big increase in features and accuracy, making a great extension to Photoshop. Check out **www.corel.com**.

CUTTING DILEMMA

Q I've been trying to use the 3D filter in Photoshop, but it always cuts up my images. Why is this?

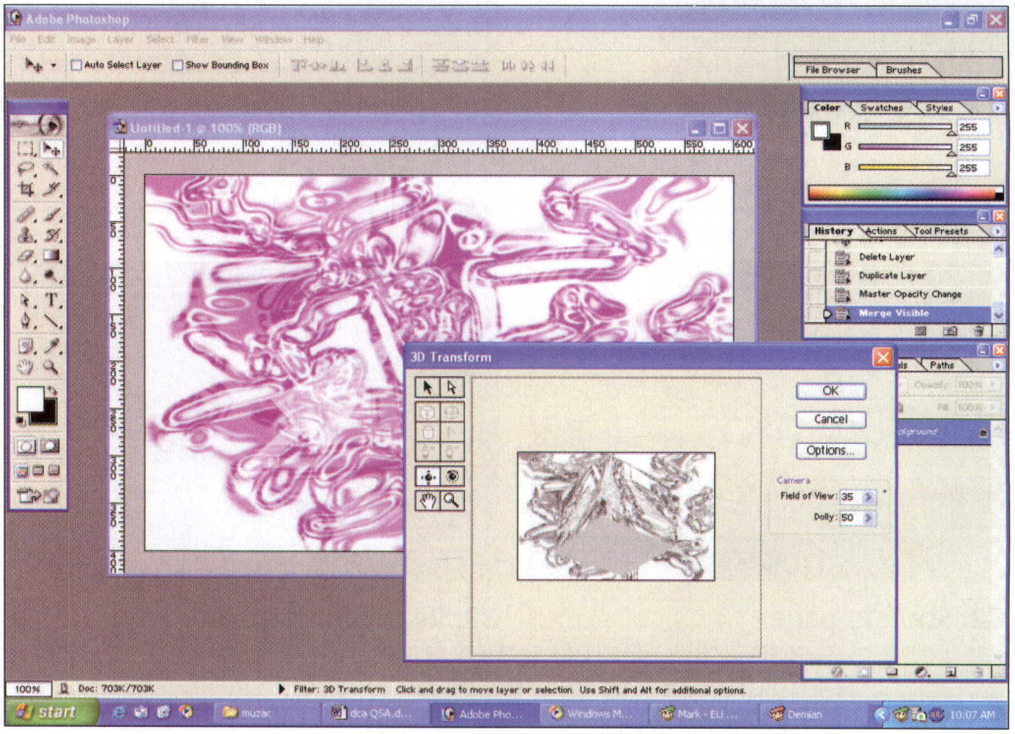
Ian Stone

A The 3D filter isn't so much a 3D tool as a faking-it tool, although it can work very well. '3D Transform', found in the 'Effects', 'Render' menu takes a portion of an image contained either in the cube or sphere you draw on the screen, and whatever is contained within the boundaries of the 'Transform' object can be rotated and manipulated to a mock 3D position. The reason your images are cut up is that you're creating the 'Transform' object, which is smaller than your overall image, so only the portion that's contained within its boundaries is being manipulated. You can resize the boundary of the 'Transform' sphere or cube so it encompasses your whole image. When you rotate the 'Transform' tool, everything will be 3D modified! You should also note that because the '3D Transform' filter affects the whole layer, you should always copy the layer you are working on, use the 'Transform' tool and then cut out the transformed area.

CORRECT CORRECTION

Q I got into digital photography recently, but I'm still new to Photoshop. How can I colour correct my images properly without my present lengthy 'hit and miss' process?

Jeff Staples



The '3D Transform' filter works by taking a section of an image in the cube or sphere you've drawn onscreen, and enabling you to rotate and manipulate it to a mock 3D position. It's best to work on a copy of the layer, because the whole layer will be affected

PHOTOSHOP

The 'Variations' function makes colour correction a much easier process, but it is ignored by many people

A Even hardened pros who know all of Photoshop's features inside out often haven't got a clue about the proper way to correct colour, let alone make it an easy process. Fortunately, Photoshop (versions 5 and later) has a command that many people completely bypass when it comes to colour correction – the 'Variations' function. This command takes a copy of your image and has a colour wheel made up of buttons of your image, with different tints applied so you can instantly see the effects of different modifications to your image's shadows, mid-tones and highlights. Open one of your digital images and go to the 'Image' menu, 'Adjust', 'Variations' and your screen will be hijacked with the single most useful colour correction tool in any image-editing package. The 'Current pick' represents what will be selected if you click 'OK'. Now you can add any different tones while seeing the effect any other tone would have on your present colour corrections. It's best to change the level of coarseness one notch lower towards 'fine' than the default setting, which adds too much of any individual colour correction operation to be of use. This should have you fixing images in record time and to record quality!

UP THE GARDEN PATH

Q I'm using the latest version of Photoshop and I'm experiencing some problems stroking along a path – when I draw a path, the 'Stroke Path' button in the 'Paths' palette is never highlighted, so I can't make it work. Can you help?

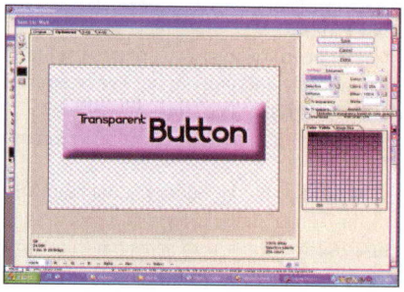
Patrick Blinde

A This was a bit of an oversight in more recent versions of Photoshop, and the 'Help' files won't actually help you very much at all. The ability to stroke a path is essential for the creation of any even remotely complex object. Newer versions of Photoshop were meant to make this task easier – the theory goes like

CREATIVEPRIMER

Creating transparent GIFs

Transparency GIFs are easy to create, but only if you know how! A bit of cunning Photoshop layer jiggery-pokery will have your GIFs as see-through as you like in record time. Create a new layer in Photoshop and delete the background – this is the first thing that is absolutely essential. Create another new layer and then create your graphic on top. Now when you 'Save for Web' and select 'GIF' as your file format, the transparent background layer you created will remain see-through instead of filling with the white background that a new file begins with.



Remember to delete the background when you create your first layer for this little trick to work

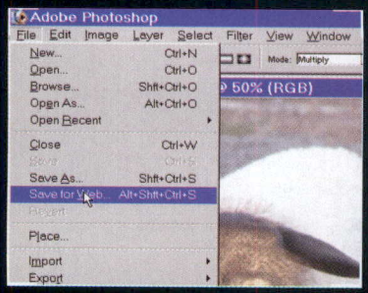
CREATIVEPRIMER

Saving images for the Web

Q I'm about to start designing a Web site to display some of my artwork. I'm using a Web editor, so have no problems with making the site, but was wondering what the best way to convert a Photoshop image into a GIF or JPEG is. Whenever I use the normal 'Save' command it just doesn't seem to work in my browser.

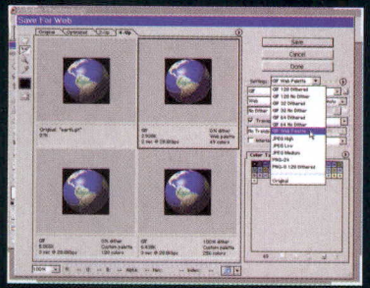
Caroline Melville

A Photoshop is an excellent program if you want to convert images for use on the Web, because it has a special 'Save' option for this very purpose. Found under the 'File' menu, the 'Save for Web' feature will sort out all your pictures for use online and allow you to optimise images for faster loading time. Here we take a look at how it works...



1: Save for the Web

Photoshop includes a very useful feature called 'Save for Web', located just underneath the normal 'Save' commands in the 'File' menu. When your image is ready to convert, select this option to get started. The aim with Web images is to get the smallest file size possible while retaining a decent quality of image.

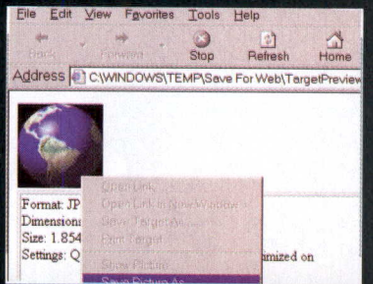


2: Considering the options

Click the '4-up' button at the top of the 'Save for Web' window. This helps to compare compression settings for JPEGs and colour palettes for GIF images. Different options are automatically displayed, but you can customise these by clicking one of the four previews and altering the settings in the panel on the right.

3: Picking the best option

With this example, we get a smaller, better quality image using the JPEG format than with the GIF. This kind of comparison will produce different results with each and every image. We can view the results in Explorer by clicking the best preview image and then the blue 'E' symbol in the bottom right of the window.



4: Viewing and saving

If you are happy with the results shown, simply right-click on the image in the Web browser window, and pick 'Download Image to Disk', specifying the desired name in the dialog box that appears. Of the HTML code shown, only the line beginning '<IMG' is required to incorporate the image into an existing Web page.

KNOWLEDGE BASE:

this: 'Draw an open path, click on the 'Paths' palette and click the 'Stroke Path' button'. Of course, this won't happen because the 'Stroke Path' button is actually unselectable; or at least it is if you have only drawn one path. The quick and easy workaround is to draw another path, even though you don't actually want to use this, and reselect the path you actually want to stroke. As if by magic, you now have the 'Stroke Path' button selectable. To actually use the 'Stroke' tool you should select the type and size of brush you want – this includes selecting the 'History Brush', 'Eraser', or anything that has a physical impact on the pixels – and then clicking 'Stroke'. The power to stroke will now be yours!

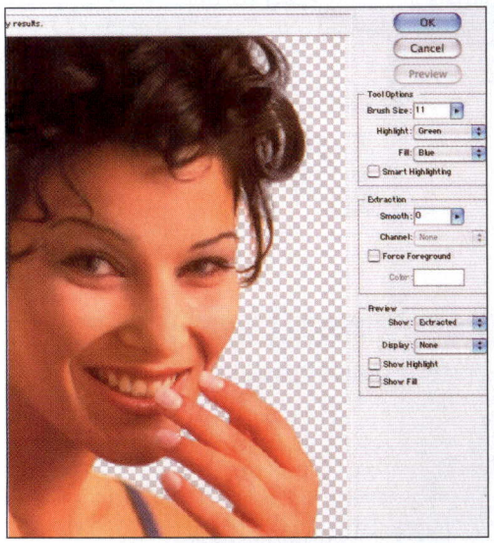
PEN PAL

Q I've been trying to cut a portrait out from an unsightly background, but I've been having difficulty with the 'Pen' tool. Any advice?

James Bradshaw

A Photoshop 6.0 introduced a tool that can help. In the 'Filters' menu is an option called 'Extract'. This causes a large window to appear in front of the existing Photoshop interface that shows your image and a group of options. Zoom in to '100%', choose a brush size large enough to cover the edge of the subject and turn on 'Smart Highlighting' in the 'Tool Options'. Paint around any area of the image with a clearly defined edge.

For areas that don't have a clearly defined edge, such as a hairline, turn 'Smart Highlighting' off and choose a larger brush. Now paint around these rougher edges. Use the 'Paint Bucket' to fill the centre and then hit 'Preview' to see your work. There are two more tools at this stage which can help out – 'Edge Touch Up' and 'Edge Clean Up'. Use these to fill in any areas that haven't quite been picked up. Finally hit the 'OK' button to see the result.



The 'Extract' option, introduced in Photoshop 6.0, will enable you to get rid of unsuitable backgrounds

FAKE FONTS

Q I am fairly adept at using Photoshop and have currently got version 6.0. I've been trying to use the text warping features to try to make warped text on some flyers. Sometimes it works without a hitch, other times I get a message saying: 'not possible as text has a Faux Bold style'. What is this and why doesn't it let me warp my text?

Geoffrey Chow

A Text, as you probably know, can be made to look different by making it bold, italic, underlined and so on. Some fonts when used in Photoshop can be between normal and bold. This is known as 'Faux Bold' and allows thin fonts to stand out from the page without dominating it. However, when this feature is turned on – often automatically by Photoshop – any text warping functionality is blocked. Fortunately, it is easy to remove the Faux Bold style and allow more warping than a pine furniture convention set in a rain forest.

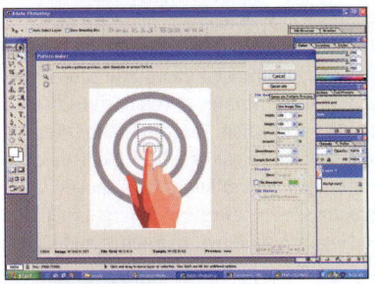
Select the text layer you are having problems with and click on the 'Palette' button to open up all the text options. You will see a small round button which has a right-facing arrow on it – click this to access the bottom level text commands. You will see that Faux Bold is here, and for many fonts, especially anything decorative, it is selected as default. Simply deselect 'Faux Bold' to get rid of any problems you were having with using Photoshop's warp features.

CREATIVEPRIMER

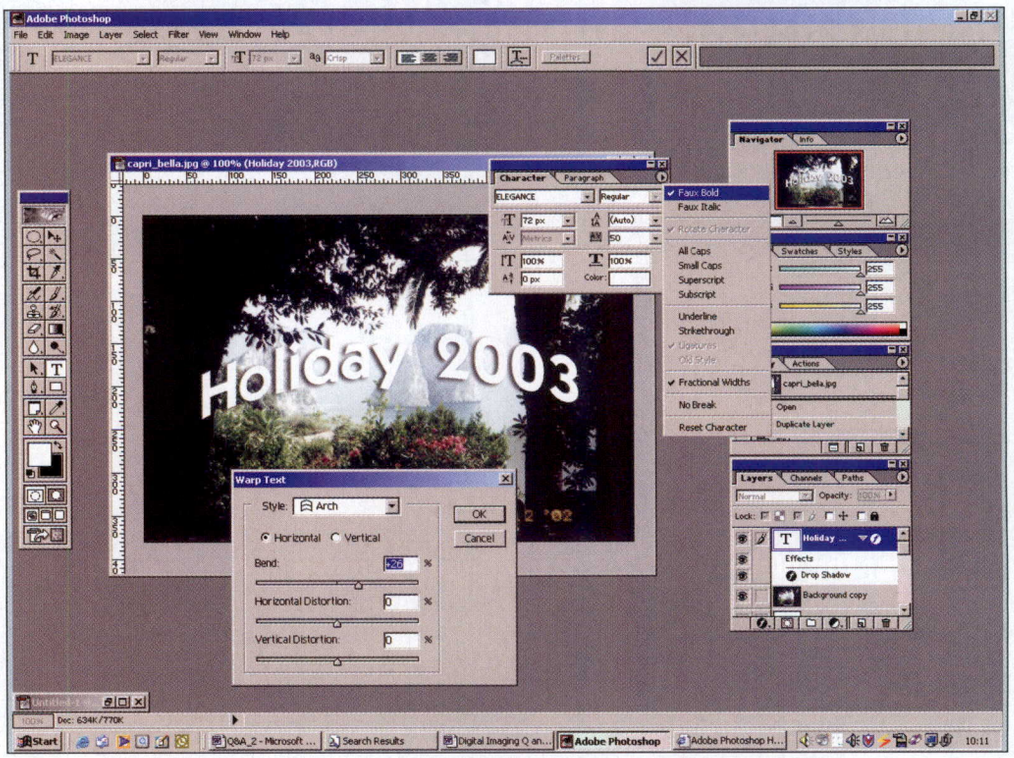
Photoshop's Pattern Generator

DISCOVER THE EASY WAY TO CREATE ORIGINAL TEXTURES IN PHOTOSHOP

When creating textures, you can set up Photoshop to make the process much easier by allowing a section of any background to be instantly tiled, which is a simple way of creating textures for bump maps. Open an image, part of which has an interesting element, and click 'Pattern Generator' in the 'Filters' menu. Create a marquee around part of your selection and click 'Generate'. When you have generated one pattern, try doing the same again and overlaying two layers using blending modes and rotating one layer by 90 degrees for some interesting results.



Photoshop's 'Pattern Generator' will help you to create some interesting textures



'Faux Bold' is the name given to some fonts which are between normal and bold when used in Photoshop. This feature helps thin fonts stand out but blocks the text warping functionality, so it needs to be turned off. Fortunately this is quite easy to do

PHOTOSHOP

NOT SECOND TIME LUCKY

Q I have a digital camera which stores images in the JPEG format. I often adjust my images in Photoshop and then save them back into JPEG format. The problem is that the images look terrible.

Jonathan Warner

A JPEG is really meant to be a delivery format, as a lot of info can be squeezed into a tiny space. However, it's a lossy format, which means that to get the file size down, image info is lost. This is usually okay for storing info on digicams, but if you save a second time you'll be applying compression on an already compressed image. To get round this, use a lossless format for your second save. The PSD format in Photoshop applies a lossless compression, as does TIFF with LZW compression. Most good cameras allow the image format or amount of compression on the JPEG to be changed – adjusting these settings will also help out greatly.

AUTO ANGST

Q When I use 'Auto Contrast' and 'Auto Levels' in Photoshop, most of the time they give the same results, but sometimes the results are different. Can you tell me why this is and also enlighten me as to what they both actually 'do'?

Brian Tate

A Interesting question. All images have dark and light areas. When you use 'Auto Contrast', Photoshop makes the darkest pixels black and the lightest white. It then spreads out all the other tonal values in between, creating more stark levels of contrast. 'Auto Levels' does the same thing but it also works on the red, green and blue channels, which will often give the same results unless a picture has an uneven or dominant channel.

AUTOMATIC ALIGNMENT

Q I have been aligning images in Photoshop on different layers using a guide that the layers automatically snap to. This is fine, but sometimes I want to have an equal space between my layers. I've been placing the layers next to each other and nudging them a pixel at a time until I have the same number of pixels between each layer. Is there a quicker way?

Sarah Wilson

A There certainly is. First link the layers you want to align (click the 'Square' next to the 'Visibility' icon in the 'Layers' palette). A 'Link' icon appears, and an option to 'Align Linked' in the 'Layers' menu. Select this, and a sub-menu will allow you to align the layers by one of the edges of the centre points of the layers. To space the layers out proportionally, go to 'Layers', select 'Distribute Linked' and make your choices in the sub-menu.

CREATIVEPRIMER

Dynamic duo

EXTEND YOUR SCOPE BEYOND PHOTOSHOP AND YOU'LL SOON REAP ALL SORTS OF REWARDS

Photoshop is the industry standard for image editing and has introduced some massively helpful tools for graphic designers in the last few releases. But don't overlook its twin program, ImageReady, which has come on in leaps and bounds. Many people begin their Web designs in Photoshop to get a graphical interface. If you get used to switching between ImageReady and Photoshop, though, the time it takes to create complex rollovers, animations and all the HTML code you need – including optimised graphics – can be cut in half. Find out more about ImageReady in out two Web design projects on pages 78-89.

CREATIVEPRIMER

Understanding graphics cards

The graphics card is the core of any creative's computer, and improves performance by increasing the resolution your monitor runs at. Before upgrading, it's obviously worth checking what resolutions your monitor can display and that the refresh rate (around 85hz) is good, or you'll end up with a flickering screen and a headache.

Most apps also need a good 2D graphics card and a decent amount of RAM to run Photoshop. If you're working with video, your app needs to be able to drive video at 24fps DV Pal quality. 3D capabilities are also an issue, with more and more home setups either playing 3D games or creatives working with 3D graphics apps – and a card that can handle buffering is essential.

The card that raises its head above the rest has to be the ATI Radeon 9800 XT, which will set you back around £420, but it has 256Mb of DDR RAM and video-out capabilities. A cheaper option is the Hercules 3D Prophet AIW 9800 SE, which also has TV-out but only has 128Mb of DDR RAM and retails at £187.98.

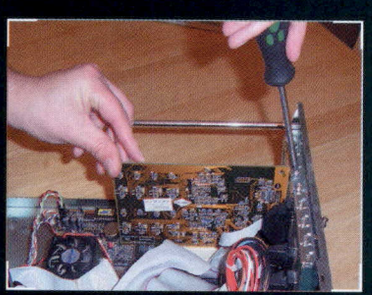
If you need to capture video it's also a good idea to get yourself a FireWire IE 1394 port, as this will capture DV-quality video into your computer in real-time. Belkin makes an excellent PCI card that retails for around £69 and has two FireWire ports and an extra two USB ports.

1: Unplugged

Clear a space on your desk and move your computer so that you can get easy access to the screws holding the outer case. Remove the power supply so that there is no chance that power is coming through the computer. Unscrew the screws that are fastening the cover.

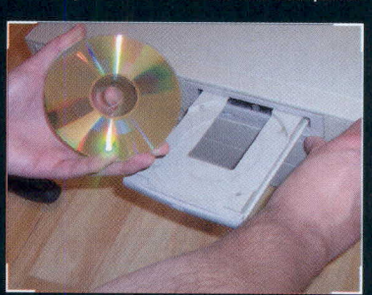
2: Look inside

Remove the cover and discharge any static electricity by touching the case with a screwdriver. Locate the AGP slot on the back of the computer; next to it will be long metal strips fastened with a screw at one end. Remove a suitable strip next to a free slot.



3: Fixing in

Remove the graphics card from the packaging and slot the card into the AGP slot so that the end with the connectors fits into the space that you removed the panel from. This is normally a little tricky as they can be quite tight, so be patient as you slot the card in.



4: Finishing touches

Put the case and cover back on, and then plug in the power supply that you previously removed. Now switch the computer on and install the software. Windows will detect that new hardware has been added, so follow the onscreen instructions to install the drivers.

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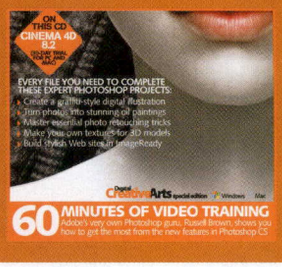
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Due to the nature of the *Digital Creative Arts Special Edition* cover disc, Highbury - Paragon cannot guarantee that all software contained on this CD will function on all systems. We are also unable to supply technical support for the individual programs on the disc. If you are having a problem running a specific program, look to see if there are any help or Read Me files associated with the program. Such files are usually found in the directory in which the program has been installed. If, after reading the advice, you still have a problem, contact the program's author or publisher directly.

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Look for the logo

Learn new techniques with our support files

Along with a host of great software and a super collection of resources, we've also included the files from our workshops so you can follow them through. When you see this logo in the mag you'll know the files are on the CD.

Adobe Photoshop Image used:
Sample images/
Contax N Digital/
ContaxND_04.JPG

How to use your free CD

Pop your CD-ROM into the optical drive of any PC or Mac (OS X only) and you'll see the interface pictured below appear. Mac users will need to click on the *DCA SE* icon to get the interface to load

This link provides details about how to get technical support for your disc
Navigate through the categories on the CD-ROM by clicking the links on this menu
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Digital CreativeArts special edition
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INSTALL
Cinema 4D (Release 8.5)
Take the latest version of this outstanding 3D modelling, rendering and character animation studio for a test drive (Demo)
INSTALL
Russell Brown's Adobe Photoshop CS 'Power Hour' (Digital photo flow)
Learn the latest version of Photoshop with this hands-on training module from Adobe's resident Photoshop guru (Sample). Quicktime player is required to view these files - www.quicktime.com
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Russell Brown's Adobe Photoshop CS 'Power Hour' (Hidden in the shadows)
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Experiencing difficulty with your CD? Don't worry, our multimedia team can help

GETTING HELP BY EMAIL

Digital Creative Arts Special Edition provides technical support only with using the CD. If you run into any problems you can email our helpdesk team at **cdhelp@digitalcreativearts.co.uk**

GETTING HELP BY TELEPHONE

Digital Creative Arts Special Edition operates a limited telephone support service. Our CD helpline is open every Wednesday between 2pm and 6pm only. Call **01202 200259** for assistance.

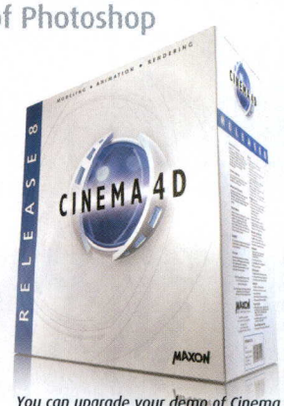
Cinema 4D R8.2 (30-day trial for PC and Mac)

Recreate our stunning cover image by combining the power of Photoshop with Maxon's top 3D modelling and rendering application

NAME: CINEMA 4D R8.2
LICENCE: 30-DAY TRIAL
OS: PC AND MAC
URL: WWW.MAXON.NET

When we wanted to produce a tutorial on combining 2D and 3D techniques for this issue's cover Cinema 4D was the obvious choice of 3D application to use. First of all, the standard edition of the program offers great value for money compared with many 3D applications, making it easier for creatives who cannot afford to spend £1,000 and upwards to get started in 3D. Secondly, we though that the program's great interface and gentle learning curve made it ideal for newcomers to 3D. Round all of this off with a powerful and flexible feature set and the fact that the program will run on older and less powerful computers and you can see that our choice was not a difficult one.

Another great thing about Cinema 4D is that it is highly extensible. Once you've mastered the basics, a number of additional modules that can add functionality to the program and increase your creativity are available. BodyPaint 3D, a powerful 3D painting and texturing tool is just one example. Character animation tool Mocca is another. In fact, you can buy a special Studio Bundle edition of Cinema 4D that includes all of these separate modules for £2,159.00. The even better news is that if you are the holder of a Photoshop licence you can get Cinema 4D for just £398.99 and the Studio Bundle for £1,285.11



You can upgrade your demo of Cinema 4D to the full version of the latest release, Cinema 4D R8.5, for £499 at www.maxoncomputer.co.uk

60 minutes of Photoshop CS video training

Master the new features in the latest version of Photoshop with these excellent training modules taken from Adobe guru Russell Preston Brown's Power Hour

Digital Creative Arts Special Edition has teamed up with Adobe to bring you some of the best video tutorials around for the latest version of Photoshop – Photoshop CS. Guiding you though the various new features of this exciting update and providing expert insight into the application's many powerful features will be none other than Photoshop legend Russell Preston Brown – Adobe's Senior Creative Director and a massive figure in the ongoing development of Photoshop.

You'll find four highly entertaining video training modules included on this issue's CD, all conducted in Russell Brown's unique and indomitable style. These are as follows:

Handmade Books: Get creative with Photoshop CS as Russell shows you how to create a 6-inch by 6-inch handmade book using just Adobe Photoshop, some high quality paper and a good printer.

Digital Photo Flow: An essential guide to digital workflow for digital photographers. Russell shows you how to manage and process large image collections with the improved file browser in Photoshop CS and explains how using metadata and actions can help you to manage digital workflow.

Hidden In The Shadows: Learn how to fix any digital image with Photoshop's amazing new Shadow/Highlight feature as Russell shows even novice Photoshop users how to generate great results.

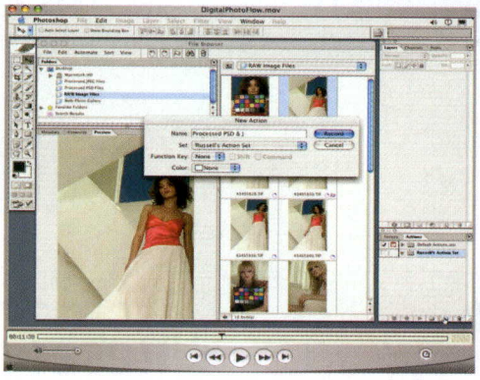
Panoramas Gone Bad: The final tutorial on the *DCASE* CD shows you how to create breathtaking panoramas and photomerges using a selection of the new tools in Photoshop CS, including Match Colour.

You'll find the support files for these tutorials available from the Resources section of the CD-ROM interface so that you can follow Russell's techniques and improve your Photoshop skills.

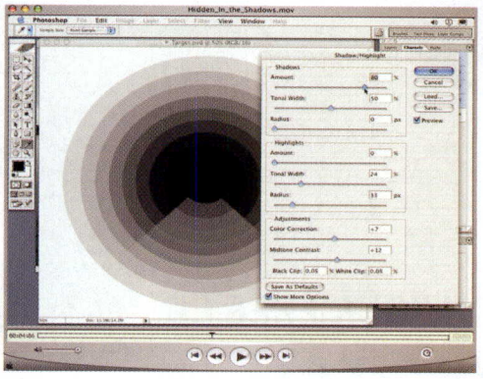
The movie files included on this CD require QuickTime in order to run. To download a free copy of the QuickTime player please visit **www.quicktime.com**.

To find out more about Russell Preston Brown and his work, and to access more high quality training resources, take a trip to **www.russellbrown.com**

Flex your creative muscle in this workshop designed to show you how to create handmade books



Digital photographers can learn how to manage their digital workflow in Digital Photo Flow



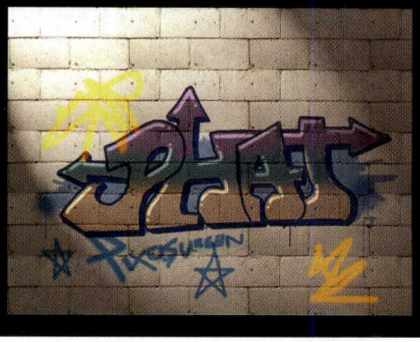
Discover how to get the most from Photoshop's remarkable Shadow/Highlight feature

Digital Creative Arts Special Edition support files

All the files you need to follow our projects have been included on the CD so that you can learn while you create

06-12 .....Create the cover
24-27 ..... Retouching
28-31 .....Working with masks
32-33.....Shadow and highlight
42-45.....Photomontage
46-51 .....Graffiti illustration
58-63 .....Oil paintings
68-71 .....Textures
72-77.....UV texturing
78-83 .....Interactive interface
84-89 .....Portfolio Web site

Follow Simon Danaher's expert guidance on page six to recreate this issue's cover image



Jason Arber shows you how to create a Wild Style digital graffiti canvas on page 46

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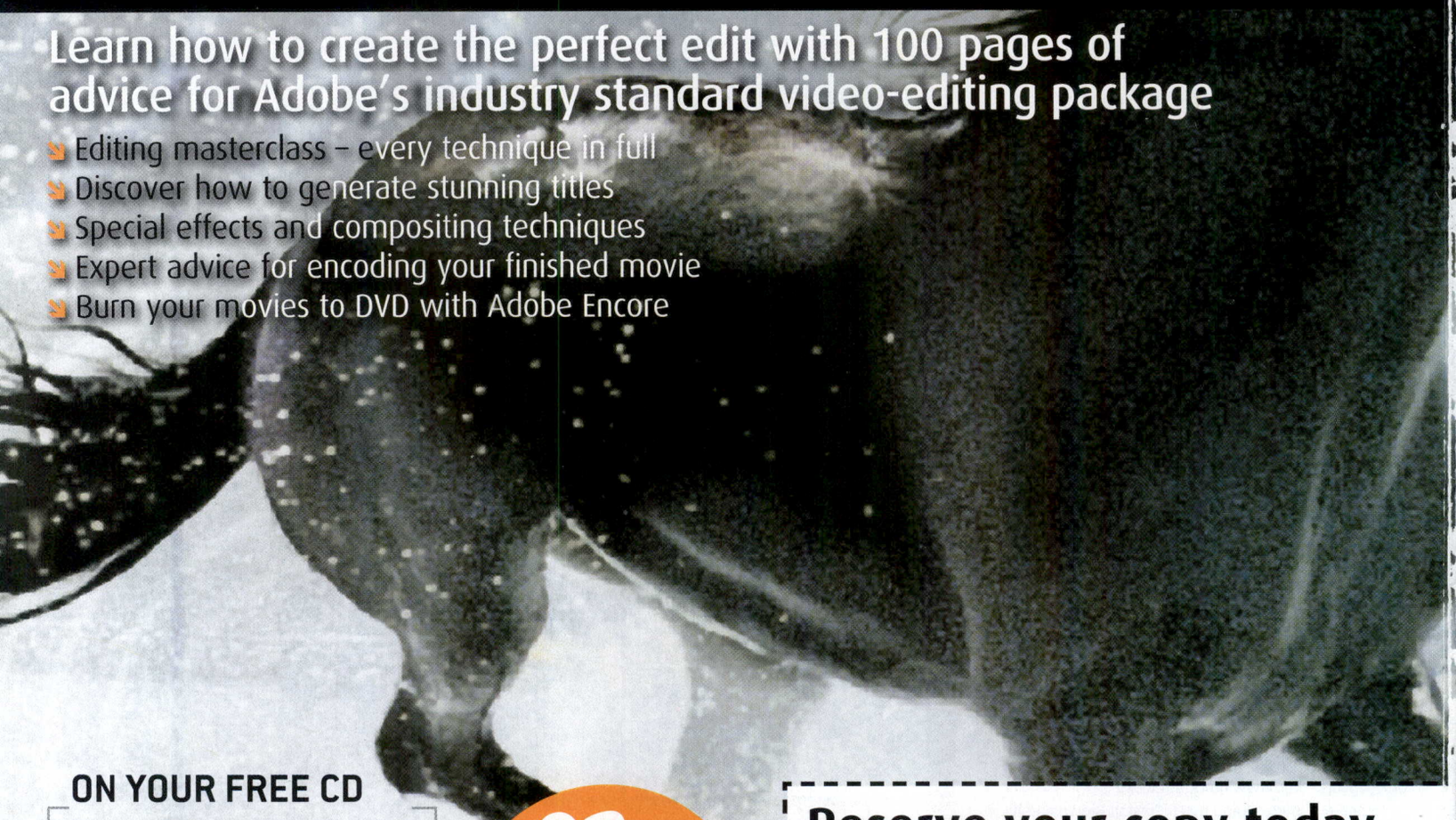

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